



A DICTIONARY
OF SCIENTIFIC TERMS

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PRONUNCIATION, DERIVATION, AND DEFINITION OF
TERMS IN BIOLOGY, BOTANY, ZOOLOGY, ANATOMY,
CYTOLOGY, GENETICS, EMBRYOLOGY, PHYSIOLOGY

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PREFACE

IT was thought desirable that there should be available to students and others interested in the Biological Sciences an up-to-date work somewhat on the lines of Stormonth's *Manual of Scientific Terms* (1879, republished 1903). The subjects selected for treatment are Biology and its allies: Botany, Zoology, Cytology, Genetics, Embryology, Anatomy, Physiology; some terms in Bacteriology and Palæontology are included. Specific, generic, ordinal, and other systematic names of plants and animals have necessarily been omitted, nor could references to the sources of terms be listed in a volume of moderate size.

The method of spelling is in the main that used in Britain, but due attention is paid to American orthography, by means of cross-references or by reproducing in the original lettering terms culled from scientific literature published in the United States. Spelling, however, is not static, as may be illustrated by the tendency to substitute *e* for the diphthongs *ae* and *oe*, and by compound words which may be written as two separate words, or hyphenated, or integrated as one word.

In the statement of derivation of terms, Greek and Russian words have been transliterated, as science and medical students are seldom acquainted with those languages. On the advice of one authority on Greek, the transliteration of certain combinations of letters represents the sound rather than the exact letters of the original, hence the occurrence of such words as *brangchia*, *hydor*, etc.

Pronunciation, upon which there can never be universal agreement, is the least satisfactory portion, and is likely to remain so. Quite apart from natural differences in Scottish, English, and American utterance, pronunciation is subject to different fashions in different centres of learning. Moreover, the accepted position of the accent also varies in different localities and from one generation to another. Some of the alternative styles of pronunciation given will doubtless be regarded by the purist as faulty or definitely wrong, but their inclusion seems justified by the law of common usage.

This Dictionary now deals with more than fifteen thousand five hundred terms. As in previous editions, the text has been revised and amplified, numerous publications having been probed not only for new terms but for new meanings which have been attached to existing terms. However, as was pointed out in the Preface to the Second Edition, "a work of this nature must inevitably remain subject to limitations of time and resources".

The accretion of additional terms might have been dealt with in the form of Supplements, but with the generous consent of the Publishers, the work has been reset for each edition in order to retain the facility of reference afforded by an unbroken alphabetical arrangement.

Thanks are also due to many individuals who, during the past forty years, have furthered the work by suggestions and criticisms.

The preparation of each new edition has also been essentially facilitated by the courtesy of the staff of various libraries, particularly in Edinburgh and Glasgow. The helpfulness of the County Librarian and staff of the Argyll County Library during preparation of the present edition is gratefully appreciated.

J. H. K.

EQUIVALENTS

- One acre = 4840 square yards = 4046·873 square metres
- One ångström = 0·0001 micron
- One are = 119·6033 square yards = 0·02471 acre
- One atmosphere = 14·7 pounds per square inch = 1033 grams per square centimetre
- One bar = pressure of mercury column of 29·53 inches, one square centimetre in area, in latitude 45°
- One British thermal unit = 251·99 calories
- One centigram = 0·15432 grain
- One centimetre = 0·39370 inch
- One chain = 22 yards = 20·1168 metres
- One cubic centimetre = 0·061 cubic inch
- One cubic foot = 0·0283 cubic metre
- One cubic inch = 16·387 cubic centimetres
- One cubic metre = 1·308 cubic yards
- One degree centigrade = 0·8 degrees Réaumur = 1·8 degrees Fahrenheit
- One degree Fahrenheit = 0·5556 Centigrade
- One degree of latitude at the equator = 68·704 statute miles
- One degree of longitude at the equator = 69·65 statute miles
- One degree Réaumur = 1·25 degrees Centigrade
- One drachm = 60 grains = 3·88793 grams
- One fathom = 6 feet = 1·828767 metres
- One fluid drachm = 3·5515 millilitres
- One fluid ounce = 28·4123 millilitres
- One fluid scruple = 1·1838 millilitres
- One foot = 12 inches = 30·4801 centimetres
- One furlong = 10 chains = 201·168 metres
- One gallon (Imperial) = 1·2 gallons (U.S.A.) = 4·54596 litres
- One gallon (U.S.A.) = 0·8327 gallon (Imperial) = 3·785 litres
- One grain (avoirdupois) = 0·0647989 gram
- One gram = 0·035274 ounce = 15·432356 grains
- One gram-calorie = 0·003968 British thermal units
- One hectare = 2·47106 acres
- One hundredweight = 112 pounds = 50·80 kilograms
- One inch = 2·53995 centimetres
- One inch (U.S.A.) = 2·54001 centimetres
- One kilogram = 2·20462 pounds (avoirdupois)
- One kilogram per square centimetre = 14·22 pounds per square inch
- One kilometre = 0·62137 statute mile
- One litre = 1·76077 pint (Imperial)
- One metre = 3·28084 feet = 39·37011 inches
- One microgram = 0·001 milligram = 0·00015 grain
- One micron = 0·001 millimetre = 0·000039 inch
- One mil = 0·001 inch
- One mile (nautical) = 1·152 statute miles = 1·8532 kilometres
- One mile (statute) = 1·6093 kilometres
- One millibar = 0·001 bar

One milligram = 0.015432 grain

One millilitre = 0.001 litre = 0.0352 fluid ounce

One millimetre = 0.03937 inch

One millimicron = 0.000001 millimetre

One minim (British) = 0.05919 cubic centimetre

One minim (U.S.A.) = 0.00376 cubic inch = 0.06161 cubic centimetre

One ounce (apothecaries) = 8 drachms = 31.10347 grams

One ounce (avoirdupois) = 437.5 grains = 28.34954 grams

One ounce (troy) = 31.10347 grams

One pennyweight = 1.555 grams

One pint (Imperial) = 568.2454 cubic centimetres

One pound (avoirdupois) = 16 ounces = 453.59243 grams

One pound (troy) = 5760 grains = 373.24 grams

One pound per square inch = 70.308 grams per square centimetre

One quart (Imperial) = 1.13649 litre

One quart (U.S.A.) = 0.94636 litre

One quintal = 100 kilograms = 220.4621 pounds

One rood = 40 poles = 10.1168 ares

One scruple = 20 grains = 1.29598 grams

One square centimetre = 0.15498 square inch

One square foot = 929.034 square centimetres

One square inch = 6.4516 square centimetres

One square kilometre = 0.3861 square mile

One square metre = 1550 square inches

One square mile = 640 acres = 2.58998 square kilometres

One square millimetre = 0.00155 square inch

One square yard = 0.8361 square metre

One stère = 35.3156 cubic feet

One stone = 14 pounds (avoirdupois) = 6.3503 kilograms

One yard = 0.9144 metre

Sound velocity (air), mean = 331.7 metres per second

Zero, absolute = -459.4° F. = -273° C. = -218.4° R.

Zero, centigrade and Réaumur = $+32^{\circ}$ F.

Zero, Fahrenheit = -17.78° C.

ABBREVIATIONS

A . . . androecium	av. . . average
Λ . . . argon	Az . . . azote (nitrogen)
a. . . anode	B . . . boron
a. . . anterior	B. . . <i>Bacillus</i>
a. . . abundant (occurrence of species)	b. . . bicuspid
a. . . adjective	Ba . . . barium
Å . . . Ångström unit(s)	Bact., bact. . . Bacterium, bacterial
AA . . . adenylic acid	bar. . . barometric
aapm. . . amphiapomict	Bé. . . Baumé
A.C., a.c. . . alternating current	Be . . . beryllium
Ac . . . actinium	Bi . . . bismuth
ACTH . . . adrenocorticotrophic hormone	B.I. . . buffer index
ADH . . . antidiuretic hormone	biol. . . biological, biology
ADP . . . adenosine diphosphate	Bk . . . berkelium
adv. . . adverb	B.M.R. . . basal metabolic rate
aet. . . (<i>aetatis</i>) age(d)	B.N.A. . . Basle Nomina Anatomica
Ag . . . silver	B.O.D. . . biochemical oxygen demand
alt. . . alternate	bot. . . botanical, botany
alt. . . altitude	B.P. . . blood pressure
Al . . . aluminium	B.P. . . British Pharmacopoeia
Am . . . americium	b.p. . . boiling point
Am . . . ammonium	B.R. . . (British) Birmingham revision of B.N.A.
AMP . . . adenosine monophosphate	Br . . . bromine
amph. . . amphimict	B.T.U. . . British thermal unit
An . . . actinon	C . . . carbon
an. . . anode	C. . . centigrade ; Celsius
anal. . . analysis	C . . . (<i>centum</i>) hundred
anat . . . anatomical, anatomy	C. . . century
ant. . . anterior	C . . . corolla
APH . . . anterior pituitary hormone	C ¹⁴ . . . radioactive carbon
APL . . . anterior-pituitary-like hormone	c. . . canine tooth
apm. . . apomict	c. . . (<i>circa</i>) approximately
appl. . . applied to	c . . . curie(s)
aq. . . water ; aqueous	C.A. . . chronological age
Ar. . . Arabic	Ca . . . calcium
Ar . . . argon	ca. . . cathode
A.S. . . Anglo-Saxon	ca. . . (<i>circa</i>) approximately
As . . . arsenic	Cal. . . large calorie(s)
At . . . astatine	cal. . . small calorie(s)
atm . . . atmosphere, atmospheric	c.c. . . cubic centimetre
ATP . . . adenosine triphosphate	Cd . . . cadmium
Å.U. . . Ångström unit(s)	Ce . . . cerium
Au . . . gold	Cel. . . Celsius
A-V . . . atrioventricular	cel. . . cellulose
	cent. . . hundred ; centigrade

c.e.s.	central excitatory state	Dut.	Dutch
c.i.s.	central inhibitory state	dwt.	pennyweight
CF	citrovorum factor	Dy	dysprosium
Cf	californium	E	east
cf.	compare	e	2.71828
cg., cgm.	centigram(s)	F.D.	effective dose
c.g.s.	centimetre-gram-second	EEG	electroencephalogram
Cl	chlorine	eff.	efferens, efferent
c.l.	corpus luteum	e.g.	(<i>exempli gratia</i>) for example
cm.	centimetre(s)	embr.	embryological, embryology
Cm	curium	E.M.F.	erythrocyte-maturing factor
c.mm.	cubic millimetre(s)	e.m.f.	electromotive force
cm/s	centimetres per second	end.	endosperm
CO	cardiac output	entom.	entomological, entomology
Co	cobalt	eos	eosinophil
Co	coenzyme	equiv.	equivalent
Co ⁶⁰	radioactive cobalt	Er	erbium
col., cols.	(bacterial) colony, colonies	ERG	electroretinogram
conc.	concentrated, concentration	E.R.S.	erythrocyte sedimentation rate
conch.	conchology	Es	einsteinium
C.O.V.	cross-over value	E.S.P.	extrasensory perception
cpd.	compound	esp.	especially
c.p.	candle-power	est.	estimated, estimation
cpl.	carpel	η	(<i>eta</i>) viscosity
c.p.s.	cycles per second	<i>et al.</i>	(<i>et alii</i>) and others
Cr	chromium	Eu	europium
Cs	caesium	F	fluorine
c.s.f.	cerebrospinal fluid	F.	Fahrenheit
CU	castrate's urine	F.	French
Cu	copper	F ₁ , F ₂ , etc.	1st, 2nd, etc. filial generation
cu., cub.	cubic	f.	female
D	deuterium	f.	frequent (occurrence of species)
d.	(<i>dexter</i>), right	FAD	flavine-adenine-dinucleotide
d.	dextrorotary	F.D.	focal distance
d.	dominant (<i>appl.</i> species)	Fe	iron
Dan.	Danish	Fe ⁵⁹	radioactive iron
db.	decibel(s)	flr(s)	flower(s)
D.C., d.c.	direct current	fm	fathom
DCA	desoxycorticosterone acetate	Fm	fermium
deg.	degree(s)	f.p.	freezing point
dg.	decigram(s)	Fr	francium
diam.	diameter	FSH	follicle-stimulating hormone
dil.	dilute	ft.	foot; feet
dim.	diminutive	fth.	fathom
D : N	dextrose : nitrogen ratio	fur.	furlong
DNA	deoxyribonucleic acid	G	gravitation constant
DNP	dinitrophenyl		
DOPA	dihydroxyphenylalanine		
doz.	dozen		
DPN	diphosphopyridine nucleotide		
dr.	drachm(s), dram(s)		

G . . .	gynoecium	in. . .	inch(es)
g. . .	gram(s)	In . . .	indium
Ga . . .	gallium	inf. . .	inferior
gal. . .	gallon(s)	infl. . .	inflorescence
γ . . .	(<i>gamma</i>) microgram	<i>i.q.</i> . .	(<i>idem quod</i>) the same as
Gd . . .	gadolinium	Ir . . .	iridium
GDH . . .	growth and development hormone	irid. . .	iridescent
Ge . . .	germanium	It. . .	Italian
gen. . .	genus	I.U. . .	international unit(s)
geog. . .	geographical	I.W. . .	isotopic weight
geol. . .	geological	JH . . .	juvenile hormone
Ger. . .	German	J.N.D. . .	just noticeable difference
Gk. . .	Greek	K . . .	calyx
gm. . .	gram(s)	K . . .	potassium
g.-mol. . .	gram-molecule	ka. . .	kathode
G.M.T. . .	Greenwich Mean Time	KC . . .	kilocycles
G : N . . .	glucose : nitrogen ratio	kg. . .	kilogram(s)
gp. . .	group	km. . .	kilometre(s)
gr. . .	grain(s), gram(s)	Kr . . .	krypton
gr. n. . .	Gram-negative	L. . .	Latin
gr. p. . .	Gram-positive	L. . .	ligament(um)
GSH . . .	glutathione	L., Linn. . .	Linnaean, Linnaeus
gt., gtt. . .	(<i>gutta</i>) drop, (<i>guttae</i>) drops	l. . .	left
H . . .	hydrogen	l. . .	litre
H ^o . . .	hydrogen ion concentration	l. . .	laevorotary
H ² . . .	deuterium	λ . . .	(<i>lambda</i>) wave length
H ³ . . .	tritium	La . . .	lanthanum
Hb . . .	haemoglobin	Lam . . .	Lamarck
He . . .	helium	lat. . .	latitude
herb. . .	herbarium	lb. . .	pound (weight)
Hf . . .	hafnium	LD . . .	lethal dose
h-f. . .	high-frequency	lf. . .	low frequency
Hg . . .	mercury	LH . . .	luteinising hormone
hg. . .	hectogram(s)	Li . . .	lithium
Hgb . . .	haemoglobin	liq. . .	liquid ; liquor
Ho . . .	holmium	L.L. . .	Late Latin
hor. . .	horizontal	log. . .	logarithm
hr, hrs . . .	hour, hours	long. . .	longitude
H.W. . .	High Water	l.p. . .	low pressure
hyb. . .	hybrid	L.S. . .	longitudinal section
hypoth. . .	hypothetical	lt. . .	low tension
I . . .	incisor	l.TH . . .	luteotrophic hormone
I . . .	iodine	LTPP . . .	lipothiamide pyrophosphate
I ¹³¹ . . .	radioactive iodine	Lu . . .	lutetium
i. . .	incisor (deciduous)	L.W. . .	Low Water
IAA . . .	β-indolyl acetic acid	M. . .	Membrana, Musculus
<i>ib., ibid.</i> . .	(<i>ibidem</i>) in the same place	M . . .	(<i>mille</i>) thousand
Icel. . .	Icelandic	M . . .	molecular weight
ichth. . .	ichthyology	m. . .	male
ICSH . . .	interstitial cell-stimulating hormone	m. . .	metre(s)
<i>id.</i> . .	(<i>id est</i>) that is	m. . .	mile(s)
		m. . .	minim(s)
		m. . .	minute(s)

m.	. . .	molar	2n	. . .	diploid number
m.	. . .	musculus, muscle	n	. . .	refractive index
m-	. . .	meta-	n.	. . .	noun
ma.	. . .	milliampère	Na	. . .	sodium
Mal.	. . .	Malaysian	Na ²⁴	. . .	radioactive sodium
max.	. . .	maximum	N.A.P.	. . .	Nomina Anatomica, Paris
mb.	. . .	millibar(s)	Nb	. . .	niobium
mc.	. . .	millicurie(s)	Nd	. . .	neodymium
Md	. . .	mendelevium	Ne	. . .	neon
M.E.	. . .	Middle English	n.g.	. . .	new genus
micr.	. . .	microscopic	Ni	. . .	nickel
min.	. . .	minimum	No., no.	. . .	number
min.	. . .	minute(s)	No	. . .	nobelium
M.I.O.	. . .	minimum identifiable odour	norm.	. . .	normal
Mg	. . .	magnesium	Np	. . .	neptunium
mg., mgm.	. . .	milligram(s)	n.p.	. . .	normal pressure
ml.	. . .	millilitre(s) ; c.c.	NPN	. . .	non-protein nitrogen
MLD	. . .	minimum lethal dose	N.S.	. . .	not significant
mm.	. . .	millimetre(s)	n.sp.	. . .	new species
mμ	. . .	millimicron	NTP	. . .	normal temperature and pressure
Mn	. . .	manganese	O	. . .	oxygen
Mo	. . .	molybdenum	O ₃	. . .	ozone
mo.	. . .	month	o-	. . .	ortho-
mol.	. . .	gram-molecule	o.	. . .	occasional (occurrence of species)
mol. wt.	. . .	molecular weight	obl.	. . .	oblique, oblong
m.p.	. . .	melting point	O.F.	. . .	Old French
m.p.h.	. . .	miles per hour	O.H.G.	. . .	Old High German
m.p.s.	. . .	metres per second	Ω	. . .	(<i>Omega</i>) ohm(s)
mr.	. . .	milliroentgen	opp.	. . .	as opposed to ; opposite
mrad	. . .	millirad(s)	opt.	. . .	optical
msec.	. . .	millisecond ; σ	opt.	. . .	optimal
MSH	. . .	melanocyte-stimulating hormone	org.	. . .	organic
m.s.l.	. . .	mean sea-level	orig.	. . .	original
M.U.	. . .	mouse unit	orn., ornith.	. . .	ornithology
μ	. . .	(<i>mu</i>) micron	Os	. . .	osmium
μc	. . .	microcurie(s)	O.T.	. . .	old terminology
μg.	. . .	microgram(s)	ov.	. . .	ovary
μl	. . .	microlitre(s)	Oz	. . .	ounce(s)
μmm	. . .	micromillimetre(s)	P	. . .	perianth
μμc	. . .	micromicrocurie(s)	P	. . .	phosphorus
μμg	. . .	micromicrogram(s)	P.	. . .	premolar
μμ	. . .	micromicron (0.001 mμ)	P.	. . .	probability
Mv	. . .	mendelevium	P ³²	. . .	radioactive phosphorus
mV	. . .	millivolt(s)	p	. . .	posterior
myc.	. . .	mycology	p-	. . .	para-
N	. . .	nitrogen	p a.	. . .	per annum
N	. . .	normal solution	Pa	. . .	protactinium
N	. . .	north	PABA	. . .	para-aminobenzoic acid
n.	. . .	nasal	pal.	. . .	palaeontology
n.	. . .	nervus, nerve	P ₁ , P ₂ , etc.	. . .	1st, 2nd, etc., parental generation
n	. . .	neutral, normal			
n	. . .	haploid number of chromosomes			

ABBREVIATIONS

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PATH . . .	pituitary adrenotrophic hormone	R . . .	rough (bacterial colony)
path. . .	pathology	r. . .	right
Pb . . .	lead	r. . .	Roentgen unit(s)
PBI . . .	protein-bound iodine	<i>r</i> . . .	correlation coefficient
Pd . . .	palladium	<i>r.</i> . . .	rare (<i>appl.</i> species)
Pe . . .	probable error	Ra . . .	radium
P μ E . . .	precipitation: evaporation ratio	rad. . .	radius
per. . .	perennial	rad. . .	radix
perp. . .	perpendicular	Rb . . .	rubidium
<i>pert.</i> . .	pertaining to	Rbc . . .	red blood-cells
PGA . . .	pteroylglutamic acid	RBE . . .	relative biological effective- ness
pH . . .	hydrogen ion concentra- tion	RE . . .	radium emanation
phys. . .	physics	Re . . .	rhenium
physiol. . .	physiology	rect. . .	rectangular
π . . .	(<i>pi</i>) 3·141 59265	refl. . .	reflex
pigm. . .	pigment	reg. . .	regular
Pl. . .	plasma, Plasmodium	RES . . .	reticulo-endothelial system
<i>plu.</i> . .	plural	ret. . .	retarded
Pm . . .	promethium	Rh . . .	rhesus factor
pm. . .	premolar	Rh . . .	rhodium
P-M-C . . .	pollen mother-cell	rh . . .	anti Rh agglutinin
PMS . . .	pregnant mare's serum	R.I. . .	refractive index
PNA . . .	pentose nucleic acid	Rn . . .	radon
Po . . .	polonium	RNA . . .	ribonucleic acid
POF . . .	pyruvate oxidation factor	rot. . .	rotation, rotating
pois. . .	poisonous	R.Q. . .	respiratory quotient
pop. . .	population	RT . . .	reaction time
pot. . .	potential	R.U. . .	rat unit(s)
P-P . . .	pellagra-preventing	Ru . . .	ruthenium
p.p. . .	post partum	Russ. . .	Russian
ppg. . .	precipitating	S . . .	smooth (bacterial colony)
p.p.m. . .	parts per million	S . . .	south
ppt. . .	precipitate	S . . .	sulphur
Pr . . .	praseodymium	S ³⁵ . . .	radioactive sulphur
p.sol. . .	partly soluble	s. . .	(<i>sinister</i>), left
Pt . . .	platinum	Σ . . .	(<i>Sigma</i>) sum of
pt. . .	pint	σ . . .	(<i>sigma</i>) 0·001 second; msec.
pt. . .	point	σ . . .	(<i>sigma</i>) standard deviation
P.U. . .	pregnancy urine	S-A . . .	sinu-atrial
p.u. . .	plant unit(s)	Sb . . .	antimony
Pu . . .	plutonium	Sc . . .	scandium
pulv. . .	(<i>pulvis</i>) powder	S.D.A. . .	specific dynamic action
Q ₁ . . .	temperature coefficient	Se . . .	selenium
quad. . .	quadrilateral	sec. . .	second, secondary
ql . . .	quintal	Si . . .	silicon
qr. . .	quarter	sin. . .	sinus
qt. . .	quantity	<i>sing.</i> . .	singular
qt. . .	quart	sl. . .	slightly
<i>q.v.</i> . .	(<i>quod vide</i>) which see	Sm . . .	samarium
R. . .	Réaumur	sm. . .	small
R . . .	electrical resistance	S-M-C . . .	sperm or spore mother-cell
		Sn . . .	tin
		sol. . .	soluble ; solution

Sp.	Spanish	UDP	uridine diphosphate
sp., spp.	species	uns.	unsymmetrical
sp. gr.	specific gravity	U.S.P.	United States Pharmacopoeia
sq.	square	U.V.	ultra-violet
Sr	strontium	V	vanadium
s.s.	<i>sensu stricto</i>	V.	vibrio
sta.	stamen(s)	V.	vision
sta.	station	v	vision
std.	standard	v.	volt(s)
STH	somatotrophic hormone	v	velocity
sup.	superior	v.	verb
Sw.	Swedish	var.	variable, variety
sym.	symmetrical	ven.	vena, vein
syn.	synonym	Vert.	Vertebrata
syst.	system	vert.	vertebra, vertebrate
syst.	systole	vert.	vertical
T	temperature	ves.	vesica, vesicle
T	tension	vet	veterinary
T	tritium	V.F.	visual field
T.A.	toxin-antitoxin	vic.	vicinal
Ta	tantalum	visc.	viscous
t°	temperature	vol.	volume
Tb	terbium	v.s.	(<i>vide supra</i>) see above
T _b , t _b	body temperature	vs.	versus
Tc	technetium	W	tungsten
T.D.P.	thermal death-point	W	west
Te	tellurium	w	watt(s)
temp.	temperature	Wbc	white blood-cells
tert.	tertiary	wh.	white
t.g.	type genus	wk(s).	week(s)
Th	thorium	w.l.	wave length, λ
Ti	titanium	wt.	weight
Tl	thallium	x	haploid generation
Tm	thulium	2 x	diploid generation
tot	total	Xe	xenon
TPN	triphosphopyridine nucleotide	Y	yttrium
trop.	tropical	Yb	ytterbium
TSH	thyroid-stimulating hormone	yd(s).	yard(s)
TSP	thyroid-stimulating hor- mone of prepituitary	yr(s).	year(s)
U.	unit(s)	Zn	zinc
U	uranium	zool.	zoological, zoology
		Zr	zirconium

SOUND-SYMBOLS USED IN PRONUNCIATION

The sound-symbols have been made as simple as possible, only the broader differences in vowel-sounds being included. The phonetic spelling following each term represents a general indication of the prevailing varieties of pronunciation rather than a critically exact reproduction.

ā	<i>as in</i>	rate
ă	„	rat
â	„	far
ch	„	church
ē	„	he
ĕ	„	hen
é	„	her
g	„	go
gw	„	guano
ī	„	pine
î	„	pin
j	„	gem
k	„	cat
kw	„	queen
ng	„	sing

ō	<i>as in</i>	no
ö	„	not
ô	„	form
õ	„	anatomy
oi	„	toy
oo	„	good
ow	„	cow
s	„	moss
sh	„	fish
th	„	thin
ū	„	pure
û	„	nut
y	„	yard
z	„	maize
zh	„	vision

A DICTIONARY OF SCIENTIFIC TERMS

abactinal (äbäk'tinäl, äbäkti'näl) *a.* [L. *ab*, from; Gk. *aktis*, ray.] *Appl.* area of echinoderm body without tube-feet and in which madreporite is usually included; abambulacral, antambulacral.

abambulacral (äb'ämbülä'kräl) *a.* [L. *ab*, from; *ambulare*, to walk.] Abactinal, *q.v.*

abapical (äbäp'ikäl) *a.* [L. *ab*, from; *apex*, summit.] *Pert.* or situated at lower pole.

abaxial (äbäk'siäl) *a.* [L. *ab*, from; *axis*, axle.] *Pert.* that surface of any structure which is remote or turned away from the axis; ex-centric. *Opp.* adaxial.

abaxile (äbäk'sil) *a.* [L. *ab*, from; *axis*, axle.] *Appl.* embryo whose axis has not the same direction as axis of seed.

abbreviated (äbrë'viätëd) *a.* [L. *ad*, to; *brevis*, short.] Shortened; curtailed.

abcauline (äbköl'in) *a.* [L. *ab*, from; *caulis*, stalk.] Outwards from or not close to the stem, *opp.* adcauline.

abdomen (äbdö'mën) *n.* [L. *abdomen*, belly.] The belly; in vertebrates, part of body containing digestive organs; in Arthropoda and certain Polychaeta, posterior part of body; in Synascidiae, part of zooid below thorax.

abdominal (äbdöm'inäl) *a.* [L. *abdomen*, belly.] *Pert.* abdomen; *appl.* structures, organs, or parts of organs situated in, on, or closely related to, the abdomen.

abdominal pores,—single or paired openings leading from coelom to exterior, in cyclostomes and certain fishes.

abdominal reflex,—contraction of abdominal wall muscles when skin over side of abdomen is stimulated.

abdominal regions,—nine areas into which the abdomen is divided by two horizontal and two vertical imaginary lines, viz., hypochondriac (2), lumbar (2), inguinal (2), epigastric, umbilical, hypogastric.

abdominal ribs,—ossifications occurring in fibrous tissue between skin and muscles of certain reptiles.

abdominal ring,—one of two openings in fasciae of abdominal muscles through which passes spermatic cord in male, round ligament in female; inguinal ring.

abducens (äbdü'sënz) *n.* [L. *abducere*, to lead away.] The sixth cranial nerve, supplying the rectus externus muscle of the eyeball.

abduct (äbdükt') *v.* [L. *abductus*, led away.] To draw away from median axis.

abduction (äbdük'shön) *n.* [L. *abducere*, to lead away.] Movement away from the median axis, *opp.* adduction.

abductor (äbdük'tör) *n.* [L. *abductus*, led away.] A muscle that draws a limb or part outwards.

aberrant (äbër'änt) *a.* [L. *aberrare*, to stray.] With characteristics not in accordance with type; *appl.* species, etc.

abience (äb'iëns) *n.* [L. *abire*, to depart.] Retraction from stimulus; avoiding reaction. *Opp.* adience.

abient (äb'iënt) *a.* [L. *abire*, to depart.] Avoiding the source of stimulation. *Opp.* adient.

abiogenesis (äbiöjën'ësIs) *n.* [Gk. *a*, not; *bios*, life; *genesis*, birth.] The production of living from non-living matter; spontaneous generation. *Opp.* biogenesis.

abiology (äb'öl'öjī) *n.* [Gk. *a*, not; *bios*, life; *logos*, discourse.] The study of non-living things.

abjection (äbjëk'shün) *n.* [L. *ab-jicere*, to cast away.] The shedding of spores, as from sporophores.

abjunction (äbjüngk'shün) *n.* [L. *abjungere*, to unyoke.] The delimitation of spores by septa at tip of hypha.

ablactation (äb'läktä'shün) *n.* [L. *ab*, from; *lactare*, to give milk.] Cessation of milk secretion; weaning.

abomasum (äbömä'süm) *n.* [L. *ab*, from; *omasum*, paunch.] The read or fourth chamber of stomach of ruminants.

aboral (äbör'äl) *a.* [L. *ab*, from; *os*, *oris*, mouth.] Away from, or opposite to, the mouth.

abortion (äbör'shün) *n.* [L. *abortus*, premature birth.] Premature birth; arrest of development of an organ.

abranchiate (äbräng'kiät) *a.* [Gk. *a*, without; *branchia*, gills.] Without gills.

abrupt (äbrüpt') *a.* [L. *abruptere*, to break off.] Appearing as if broken, or cut off, at extremity.

abruptly - acuminate, — having a broad extremity from which a point arises, *appl.* leaf.

abruptly-pinnate, — having the main axis of epipodium not winged, but bearing a number of secondary axes which are winged.

abscise (äbsiz') *v.* [L. *abscidere*, to cut off.] To become separated; to fall off, as leaves, fruit, etc.

absciss (äb'sis) *a.* [L. *abscindere*, to cut off.] *Appl.* layer of meristematic cells just outside cork-layer, to whom fall of leaves, floral parts, fruits, and certain branches is due; abscissile.

abscission (äbsish'ün) *n.* [L. *abscindere*, to cut off.] The separation of parts.

absorption (äbsörp'shün) *n.* [L. *absorbere*, to suck in.] Intussusception of fluid by living cells or tissues; passage of nutritive

material through living cells; of light when neither reflected nor transmitted.

abstriction (äbstrik'shün) *n.* [L. *abstringere*, to cut off.] The process of detaching spores or conidia by rounding off of tips of sporophores, as in mildews; abjunction and abscission.

abterminal (äbtër'minäl) *a.* [L. *ab*, from; *terminus*, limit.] Going from the end inwards.

abyssal (äbis'äl) *a.* [Gk. *abyssos*, unfathomed.] *Pert.* depths of ocean; *appl.* organisms or material usually found there; abysmal.

abyssobenthic (äbis'öbën'thik) *a.* Gk. *abyssos*, unfathomed; *benthos*, depths of sea.] *Pert.*, or found on, bottom of ocean at depths exceeding *ca.* 1000 metres.

abyssopelagic (äbis'öpéläj'ik) *a.* [Gk. *abyssos*, unfathomed; *pelagos*, sea.] *Pert.*, or inhabiting, the ocean at depths exceeding *ca.* 1000 metres, *i.e.*, below the bathypelagic zone.

acanaceous (äkänä'sëus) *a.* [Gk. *akanos*, thistle.] Prickly; bearing prickles, as leaves.

acantha (äkän'thä) *n.* [Gk. *akantha*, thorn.] Prickle; spinous process.

acanthaceous (äkänthä'sëus) *a.* [Gk. *akantha*, thorn.] Bearing thorns or prickles.

acanthin (äkän'thin) *n.* [Gk. *akantha*, thorn.] Substance forming skeleton of some Radiolaria.

acanthion (äkän'thiön) *n.* [Gk. *acanthion*, small thorn.] The most prominent point on the anterior nasal spine.

acanthocarpous (äkän'thökär'püs) *a.* [Gk. *akantha*, thorn; *karpös*, fruit.] Having fruit covered with spines or prickles.

acanthocephalous (äkän'thökëf'älüs, -sëf-) *a.* [Gk. *akantha*, thorn; *kephale*, head.] With hooked proboscis.

acanthocladaous (äkän'thökäläd'üs) *a.* [Gk. *akantha*, thorn; *klados* branch.] Having spiny branches.

acanthocyst (ākān'thōsīst) *n.* [Gk. *akantha*, thorn; *kystis*, bladder.] A sac containing lateral or reserve stylets in Nemertea.

acanthodion (ākānthō'diōn) *n.* [Gk. *akanthodes*, thorny.] A tarsal seta containing extension of a sensory basal cell, in Acarina. *Plu.* acanthodia.

acanthoid (ākān'thoid) *a.* [Gk. *akantha*, thorn; *eidōs*, shape.] Resembling a spine or prickle; spiniform.

acanthophore (ākān'thōfōr) *n.* [Gk. *akantha*, thorn; *pherein*, to bear.] A conical mass, the basis of median stylet in Nemertea.

acanthopore (ākān'thōpōr) *n.* [Gk. *akantha*, thorn; *poros*, passage.] A tubular spine in certain Polyzoa.

acanthosphenote (ākān'thōsfē'nōt) *a.* [Gk. *akantha*, thorn; *sphen*, wedge.] *Appl.* echinoid spine made of solid wedges separated by porous tissue.

acanthozoid (ākān'thōzō'oid) *n.* [Gk. *akantha*, thorn; *zoon*, animal; *eidōs*, form.] Tail part of procolex of cestodes. *Opp.* cystozoid.

acapnia (ākāp'niā) *n.* [Gk. *akapnos*, without smoke.] Condition of low carbon dioxide content in blood.

acarocecidium (āk'ārōsēsīd'iūm) *n.* [Gk. *akares*, tiny; *kekis*, gall.] A gall caused by gall-mites, as by Eriophytidae.

acarology (āk'ārōl'ōjī) *n.* [Gk. *akares*, tiny; L.L. *acarus*, mite; Gk. *logos*, discourse.] The study of mites and ticks.

acaryote,—akaryote.

acaudate,—ecaudate.

acaulescent (ākōlēs'ēnt) *a.* [Gk. *a*, without; *kaulos*, stalk.] Having a shortened stem.

acauline (ākō'līn) *a.* [Gk. *a*, without; *kaulos*, stalk.] Having no stem; *appl.* certain fungi.

accelerator (āksēl'ērātōr) *n.* [L. *accelerare*, to hasten.] *Appl.* muscle or nerve which increases rate of action.

acceptor (āksēp'tōr) *n.* [L. *accipere*, to accept.] Body or substance which

receives and unites with another substance, as in oxidation-reduction processes where oxygen acceptor is the substance oxidised, hydrogen acceptor the substance reduced.

accessorius (āksēsō'rīūs) *n.* [L. *accedere*, to support.] A muscle aiding in action of another; spinal accessory or eleventh cranial nerve.

accessory bodies,—minute argyrophil particles originating from Golgi substance in spermatocytes; chromatoid bodies.

accessory bud,—an additional axillary bud; a bud formed on a leaf.

accessory cells,—see auxiliary cells.

accessory chromosomes,—sex chromosomes.

accessory food factors,—vitamins.

accessory glands,—detached portions of glands; glands in relation with genital ducts.

accessory nerve,—the eleventh cranial nerve; spinal accessory nerve.

accessory pulsatory organs,—sac-like structures of insects, variously situated, pulsating independently.

acclimatation,—acclimation, acclimatisation.

acclimation (āk'līmā'shūn) *n.* [L. *ad*, to; Gk. *klima*, climate.] The habituation of an organism to a different climate or environment.

acclimatisation (āk'līmātfzā'shūn) *n.* [L. *ad*, to; Gk. *klima*, climate.] Habituation of a species to a different climate or environment; acclimation under human management.

accommodation (āk'ōmōdā'shūn) *n.* [L. *ad*, to; *commodus*, fitting.] Adjustment of eye to receive clear images of different objects; adaptation of receptors to a different stimulus.

accrecent (ākrēs'ēnt) *a.* [L. *acrescere*, to increase.] *Appl.* plants that continue to grow after flowering, or calyx growing after pollination.

accretion (ākrē'shūn) *n.* [L. *acrescere*, to increase.] Growth by external addition of new matter.

accumbent (ākūm'bēnt) *a.* [L. *ac-cumbere*, to lie on.] *Appl.* embryo having cotyledons with edges turned towards radicle, as in Cruciferae.

accumulators (ākū'mulātōrz) *n. plu.* [L. *ad*, to; *cumulus*, heap.] Plants with a relatively high concentration of certain chemical elements in tissues.

A-cells,—alpha cells of islets of Langerhans.

acelomate,—acoelomate.

acelous,—acoelous.

acentric (āsēn'trik) *a.* [Gk. *a*, without; *kentron*, centre.] Having no centromere, *appl.* chromosomes and chromosome segments.

acentrous (āsēn'trūs) *a.* [L. *a*, without; *centrum*, centre.] With no vertebral centra, but persistent notochord, as certain fishes.

acephalocyst (ākēf'ālōsist, -sēf-) *n.* [Gk. *a*, without; *kephale*, head; *kystis*, bladder.] Hydatid stage of certain tapeworms.

acephalous (ākēf'ālūs, -sēf-) *a.* [Gk. *a*, not; *kephale*, head.] Having no structure comparable to head; *appl.* some molluscs; *appl.* larvae of certain Diptera; *appl.* ovary without terminal stigma.

acerate (ās'erāt) *a.* [L. *acer*, sharp.] Needle-shaped; pointed at one end, *appl.* monaxon or oxeote spicules.

acerose (ās'erōs) *a.* [L. *acer*, sharp.] Narrow and slender, with sharp point, as leaf of pine.

acerous (ās'erūs) *a.* [Gk. *a*, without; *keras*, horn.] Hornless; without antennae; without tentacles.

acervate (āsēr'vāt) *a.* [L. *acervare*, to amass.] Heaped together; clustered.

acervuline (āsēr'vūlīn) *a.* [L.L. *dim.* of *acervus*, heap.] Irregularly heaped together, *appl.* foraminiferal tests.

acervulus (āsēr'vūlūs) *n.* [L.L. *dim.* of *acervus*, heap.] A small heap or cluster, especially of sporogenous mycelium.

acervulus cerebri,—brain sand, *q.v.*

acetabular,—*pert.* acetabulum.

acetabulum (āsētāb'ulūm) *n.* [L. *acetabulum*, vinegar-cup.] The cotyloid cavity or socket in pelvic girdle for head of femur; in insects, cavity of thorax in which leg is inserted; cavity in proximal end of spine, for articulation with mamelon, in echinoids; large posterior sucker in leeches; sucker on arm of cephalopod; one of the cotyledons of placenta in ruminants.

achaetous (ākē'tūs) *a.* [Gk. *a*, without; *chaite*, hair.] Without chaetae or bristles.

acheilary (ākī'lārī) *a.* [Gk. *a*, without; *cheilos*, lip.] Having labellum undeveloped, as some orchids.

achene (ākēn') *n.* [Gk. *a*, not; *chainein*, to gape.] A one-seeded, dry, indehiscent fruit; achenium.

achenial,—*appl.* one-seeded, dry, indehiscent fruits, as achene, cypsela, caryopsis, samara, and nut.

Achillis tendo (ākīl'is tēn'dō) *n.* [Gk. *Achilles*; L. *tendo*, tendon.] The united strong tendon of gastrocnemius and solacus muscles, tendo calcaneus.

achlamydeous (āk'lāmīd'ēūs) *a.* [Gk. *a*, without; *chlamys*, cloak.] Having neither calyx nor corolla.

achondroplasia (ākōn'drōplā'ziā) *n.* [Gk. *a*, without; *chondros*, cartilage; *plasis*, a moulding.] Heritable dwarfism due to disturbance of ossification in the long bones of the limbs and of certain facial bones during development; *cf.* ateleosis.

achroacyte (āk'rō'āsīt) *n.* [Gk. *a*, not; *chros*, colour; *kytos*, hollow.] Colourless or lymph cell; lymphocyte.

achroglobin (āk'rōglō'bīn) *n.* [Gk. *a*, not; *chros*, colour; L. *globus*, sphere.] A colourless respiratory pigment of some tunicates and molluscs.

achroic,—achroous.

achromasie (āk'rō'māstī) *n.* [Gk. *a*, not; *chroma*, colour.] Emission of chromatin from nucleus; *cf.* chromasie.

achromatic (āk'rōmāt'ik) *a.* [Gk. *a*, without; *chroma*, colour.] *Appl.* threshold, the minimal stimulus inducing sensation of luminosity or brightness; *cf.* chromatic; *appl.* neutral colours; achromatinic, *q.v.*

achromatin (ākrō'mātin) *n.* [Gk. *a*, without; *chroma*, colour.] The non-staining ground substance and linin of the nucleus.

achromatinic (ākrō'mātin'ik) *a.* [Gk. *a*, without; *chroma*, colour.] *Pert.* achromatin, or resembling achromatin in properties.

achromic (ākrō'mik) *a.* [Gk. *a*, without; *chroma*, colour.] Unpigmented; colourless; achromaticous.

achromite,—centromere, *q.v.*

achroous (ākrō'ūs) *a.* [Gk. *a*, without; *chros*, complexion.] Unpigmented; colourless.

acicle (ās'ikl) *n.* [L. *acicula*, small needle.] A thorn-shaped scaphocerite, as in Paguridae; acicula.

acicula (āsik'ulā) *n.* [L. *acicula*, small needle.] A small needle-like bristle, spine, or crystal; *plu.* of aciculum. *Plu.* aciculae.

acicular,—like a needle in shape; sharp-pointed.

aciculate (āsik'ulāt) *a.* [L. *acicula*, small needle.] Having acicles or aciculae.

aciculum (āsik'ulūm) *n.* [L. *acicula*, small needle.] A stiff basal seta in parapodium of Chaetopoda.

acid-fast,—remaining stained with aniline dyes on treatment with acids; *appl.* bacteria.

acidic (āsīd'ik) *a.* [L. *acidus*, sour.] *Appl.* stains whose colour determinant plays the part of an acid, acting on protoplasm; *cf.* basic.

acidophil (ās'idūfil) *a.* [L. *acidus*, sour; Gk. *philein*, to love.] Oxyphil, *q.v.*; growing in acid media.

aciduric (ās'idū'rik) *a.* [L. *acidus*, sour; *durus*, hardy.] Tolerating acid media; acidophil.

aciform (ās'ifōrm) *a.* [L. *acus*, needle; *forma*, shape.] Needle-shaped.

acinaciform (āsīnās'ifōrm) *a.* [L. *acinaces*, short sword; *forma*,

shape.] Shaped like a sabre or scimitar; *appl.* leaf.

acinarius (āsīnā'riūs) *a.* [L. *acinarius*, *pert.* grapes.] Having globose vesicles, as some algae.

aciniform (āsīn'ifōrm) *a.* [L. *acinus*, berry; *forma*, shape.] Grape- or berry-shaped; *appl.* a type of silk gland in spiders.

acinus (ās'inūs) *n.* [L. *acinus*, berry.] One of drupels composing fruit of bramble or raspberry; sac-like termination of branched gland.

acme (āk'mē) *n.* [Gk. *akme*, prime.] The highest point attained, or prime, in phylogeny and ontogeny; *cf.* epacme, paracme.

acoelomate (āsē'lōmāt) *a.* [Gk. *a*, without; *koilos*, hollow.] *Appl.* animals not having a true coelom; acoelomatous; acoelous, *q.v.*

acoelous (āsē'lūs) *a.* [Gk. *a*, without; *koilos*, hollow.] *Appl.* vertebrae with flattened centra; acoelomate, *q.v.*

acondylous (ākōn'dilūs) *a.* [Gk. *a*, without; *kondylos*, knuckle.] Without nodes or joints.

acone (ākōn') *a.* [Gk. *a*, without; *konos*, cone.] *Appl.* insect compound eye without crystalline or liquid secretion in cone cells.

acontia (ākōn'tiā, ākōn'shiā) *n. plu.* [Gk. *akontion*, small javelin.] Threadlike processes of mesenteric filaments armed with stinging cells, in actinians.

acotyledon (ākōtīlē'dōn) *n.* [Gk. *a*, without; *kotyledon*, a cup-shaped hollow.] A plant without a cotyledon.

acoustic (ākoo'stik) *a.* [Gk. *akouein*, to hear.] *Pert.* organs or sense of hearing; *appl.* meatus, nerve, etc.; *pert.* science of sound.

acquired character,—a modification or permanent structural or functional change effected during the lifetime of the individual organism and induced by use or disuse of a particular organ, by disease, trauma, or other functional or environmental influences.

acral (āk'rāl) *a.* [Gk. *akros*, tip.] *Pert.* extremities.

acraspedote (āk'rās'pēdōt) *a.* [Gk. *a*, without; *kraspedon*, border.] Having no velum.

acroblast (āk'rōblāst) *n.* [Gk. *akros*, tip; *blastos*, bud.] A body in spermatid and which gives rise to acrosome; outer layer of mesoblast.

acrobryous (āk'rōb'rīūs) *a.* [Gk. *akros*, tip; *bryein*, to swell.] Growing at the tip only.

acrocarpic (āk'rōkār'pīk) *a.* [Gk. *akros*, tip; *karpos*, fruit.] Having the fructification terminating the axis; acrocarpous; *appl.* mosses.

acrocentric (āk'rōsēn'trīk) *a.* [Gk. *akros*, tip; *kentron*, centre.] With centromere at end, *appl.* chromosome. *n.* A rod-shaped chromosome.

acrochordal (āk'rōkōr'dāl) *a.* [Gk. *akros*, tip; *chorda*, cord.] *Appl.* a chondrocranial unpaired frontal cartilage in birds.

acrochroic (āk'rōkrō'īk) *a.* [Gk. *akros*, tip; *chros*, colour.] With coloured tips, as of hyphae.

acrocoracoid (āk'rōkōr'ākoid) *n.* [Gk. *akros*, tip; *corax*, crow; *eidos*, form.] A process at dorsal end of coracoid in birds.

acrocyst (āk'rōsist) *n.* [Gk. *akros*, tip; *kystis*, bladder.] The spherical gelatinous cyst formed by gonophores at maturation of generative cells.

acrodont (āk'rōdōnt) *a.* [Gk. *akros*, tip; *odontos*, tooth.] *Appl.* teeth attached to the summit of a parapet of bone, as in lizards.

acrodrome (āk'rōdrōm), **acrodromous** (āk'rōd'rōmūs) *a.* [Gk. *akros*, tip; *dramein*, to run.] *Appl.* leaf with veins converging at its point.

acrogenous (āk'rōj'ēnūs) *a.* [Gk. *akros*, tip; *-genes*, producing.] Increasing in growth at summit or apex.

acrogynous (āk'rōj'īnūs) *a.* [Gk. *akros*, tip; *gyne*, female.] With archegonia arising from apical cell, *appl.* certain liverworts. *Opp.* anacrogynous.

acromegaly (āk'rōmēg'ālī) *n.* [Gk. *akros*, tip; *megalon*, great.] Gigantism due to excessive activity of part of pituitary gland.

acromial (āk'rō'mīāl) *a.* [Gk. *akros*,

summit; *omos*, shoulder.] *Pert.* acromion, *appl.* artery, process, ligament, etc.

acromio-clavicular (āk'rō'mīōklāvīk'ūlār) *a.* [Gk. *akromion*, shoulder-summit; L. *clavicula*, *dim.* of *clavis*, key.] *Appl.* ligaments covering joint between acromion and clavicle.

acromion (āk'rō'mīōn) *n.* [Gk. *akros*, summit; *omos*, shoulder.] Ventral prolongation of scapular spine.

acron (āk'rōn) *n.* [Gk. *akron*, top.] Preoral region of insects; anterior, unsegmented part of young trilobite.

acropetal (āk'rōp'ētāl) *a.* [Gk. *akros*, summit; L. *petere*, to seek.] Ascending; *appl.* leaves, flowers, or roots, developing successively from an axis so that youngest arise at apex. *Opp.* basipetal.

acrophyte (āk'rōfīt) *n.* [Gk. *akron*, peak; *phyton*, plant.] A plant growing at a high altitude; alpine plant.

acropasm (āk'rōplāzm) *n.* [Gk. *akros*, tip; *plasma*, form.] Cytoplasm of the apex of an ascus.

acropodium (āk'rōpōdīūm) *n.* [Gk. *akros*, tip; *pous*, foot.] Digits,—fingers or toes; *cf.* metapodium.

acrorhagus (āk'rōrā'gūs) *n.* [Gk. *akros*, summit; *rhax*, grape.] A tubercle near the margin of certain Actiniaria, containing specialised nematocysts.

acrosarc (āk'rōsârk) *n.* [Gk. *akros*, summit; *sarx*, flesh.] A pulpy berry resulting from union of ovary and calyx.

acroscopic (āk'rōskōp'īk) *a.* [Gk. *akros*, tip; *skopein*, to view.] Facing towards the apex, *opp.* basiscopic.

acrosome (āk'rōsōm) *n.* [Gk. *akros*, tip; *soma*, body.] Body at apex of spermatozoon; apical body; perforatorium.

acrospire (āk'rōspīr) *n.* [Gk. *akros*, tip; *speira*, something twisted.] The first shoot or sprout, being spiral, at end of germinating seed.

acrospore (āk'rōspōr) *n.* [Gk. *akros*, tip; *sporos*, seed.] The spore at the apex of a sporophore.

acroteric (äk'rötër'ík) *a.* [Gk. *akroterion*, topmost point.] *Pert.* outermost points, as tips of digits, nose, ears, tail.

acrotonic (äk'rötön'ík) *a.* [Gk. *akros*, tip; *tonos*, brace.] Having anther united at its apex with rostellum; acrotonous. *Opp.* basitonic.

acrotrophic (äk'rötröf'ík) *a.* [Gk. *akros*, tip; *trophe*, nourishment.] *Appl.* ovariole having nutritive cells at apex which are joined to oocytes by nutritive cords; telotrophic.

actinal (äk'tinäl, äkti'näl) *a.* [Gk. *aktis*, ray.] *Appl.* area of echinoderm body with tube-feet; *appl.* oral area with tentacles in Actiniaria.

actine (äk'tin) *n.* [Gk. *aktis*, ray.] A star-shaped spicule.

actinenchyma (äk'tinäng'kīmā) *n.* [Gk. *aktis*, ray; *en*, in; *chein*, to pour.] Cellular tissue having a stellate appearance.

actiniform,—actinoid.

actinobiology (äk'tinöbiöl'öji) *n.* [Gk. *aktis*, ray; *bios*, life; *logos*, discourse.] The study of the effects of radiation upon living organisms.

actinoblast (äk'tinöbläst) *n.* [Gk. *aktis*, ray; *blastos*, bud.] The mother-cell from which a spicule is developed, as in Porifera.

actinocarpous (äk'tinökär'pūs) *a.* [Gk. *aktis*, ray; *karpos*, fruit.] *Appl.* plants with flowers and fruit radially arranged; actinocarpic.

actinochitin (äk'tinöki'tin) *n.* [Gk. *aktis*, ray; *chiton*, tunic.] Anisotropic or birefringent chitin.

actinodrome (äk'tin'ödröm) *a.* [Gk. *aktis*, ray; *dromos*, course.] Veined palmately; actinodromous.

actinogonidial (äk'tinögönid'ial) *a.* [Gk. *aktis*, ray; *gonos*, offspring.] Having radiately arranged genital organs.

actinoid (äk'tinoid) *a.* [Gk. *aktis*, ray; *eidos*, shape.] Rayed; star-shaped, stellate.

actinology (äk'tinöl'öji) *n.* [Gk. *aktis*, ray; *logos*, discourse.] The study of the action of radiation;

study of radially symmetrical animals; homology of successive regions or parts radiating from a common central region.

actinomere (äktin'ömēr) *n.* [Gk. *aktis*, ray; *meros*, part.] A radial segment.

actinomorph (äk'tinömôr'flk) *a.* [Gk. *aktis*, ray; *morphe*, shape.] Radially symmetrical; actinomorphous.

actinopharynx (äk'tinöfär'ingks) *n.* [Gk. *aktis*, ray; *pharynx*, gullet.] The gullet of a sea-anemone.

actinospore (äktin'öspör) *n.* [Gk. *aktis*, ray; *sporos*, seed.] A spore of Actinomycetes.

actinost (äk'tinöst) *n.* [Gk. *aktis*, ray; *osteon*, bone.] Basal bone of fin-rays in teleosts.

actinostele (äk'tinöstē'lē) *n.* [Gk. *aktis*, ray; *steele*, pillar.] Stele with xylem radiating outwards and forming ridges, as in certain Pteridophyta.

actinostome (äktin'östöm) *n.* [Gk. *aktis*, ray; *stoma*, mouth.] The mouth of a sea-anemone; five-rayed oral aperture of starfish.

actinotrichia (äk'tinötrik'ia) *n. plu.* [Gk. *aktis*, ray; *thrix*, hair.] Unjointed horny rays at edge of fins in many fishes.

actinotrocha (äk'tinöt'rökā) *n.* [Gk. *aktis*, ray; *trochos*, wheel.] Free-swimming larval form of Phoronis.

actinula (äktin'ulā) *n.* [Gk. *aktis*, ray.] A larval stage in some Hydro-medusae.

action system,—behaviour pattern.

activator (äktivä'tör) *n.* [L. *activus*, active.] A substance which promotes or protects enzyme action; a substance which stimulates development of any particular embryonic tissue or organ.

active centre,—the part of an enzyme protein structure which combines with the substrate where activation and reaction take place.

aculeate (äkü'lēāt) *a.* [L. *aculeus*, prickle.] Having prickles, sharp points, or a sting.

aculeiform (ākū'lēifōrm) *a.* [L. *aculeus*, prickle; *forma*, shape.] Formed like a prickle or thorn.

aculeus (ākū'lēūs) *n.* [L. *aculeus*, prickle.] A prickle growing from bark, as in rose; a sting; a hair-like projection; a microtrichium.

acuminate (ākū'mīnāt) *a.* [L. *acumen*, point.] Drawn out into long point; tapering; pointed.

acuminiferous (ākū'mīnif'ērūs) *a.* [L. *acumen*, point; *ferre*, to carry.] Having pointed tubercles.

acuminulate (āk'ūmīn'ūlāt) *a.* [L. *acuminulus*, *dim.* of *acumen*, point.] Having a very sharp tapering point.

acute (ākūt') *a.* [L. *acutus*, sharpened.] Ending in a sharp point; temporarily severe, not chronic.

acyclic (āšīk'lik) *a.* [Gk. *a*, without; *kyklos*, circle.] *Appl.* flowers with floral leaves arranged in a spiral.

adamantoblast (ād'āmān'tōblāst) *n.* [Gk. *adamas*, diamond; *blastos*, bud.] Enamel cell; ameloblast.

adambulacral (ād'āmbulā'krāl) *a.* [L. *ad*, to; *ambulare*, to walk.] *Appl.* structures adjacent to ambulacral areas in echinoderms.

adaptation (ādāptā'shōn) *n.* [L. *adaptare*, to fit to.] The process by which an organism becomes fitted to its environment; a structure or habit fitted for some special environment; the fitting of sensations to a point when discomfort ceases; adjustment of disturbance of nervous system without involving higher co-ordinating centres.

adaptive (ādāp'tiv) *a.* [L. *adaptare*, to fit to.] Capable of fitting different conditions; adjustable; inducible, *appl.* enzymes formed when their specific substrates are available, *opp.* constitutive enzymes.

adaxial (ādāk'siāl) *a.* [L. *ad*, to; *axis*, axle.] Turned towards the axis. *Opp.* abaxial.

adcauline (ād'kōl'in) *a.* [L. *ad*, to; *caulis*, stalk.] Towards or nearest the stem, *opp.* abcauline.

ad-digital (ād'dij'itāl) *n.* [L. *ad*, to;

digitus, finger.] A primary wing-quill connected with phalanx of third digit.

adduction (ād'dūk'shōn) *n.* [L. *ad*, to; *ducere*, to lead.] Movement towards the median axis, *opp.* abduction.

adductor (ād'dūk'tōr) *n.* [L. *ad*, to; *ducere*, to lead.] A muscle which brings one part towards another.

adeciduate (ā'dēsīd'ūāt) *a.* [L. *a*, away from; *decidere*, to fall down.] Not falling, or coming away; *appl.* evergreens; *appl.* placenta.

adecticous (ādēk'tikūs) *a.* [Gk. *a*, without; *dektikos*, biting.] Without functional mandibles, *appl.* pupa. *Opp.* decticous.

adelocodonic (ād'ēlōkōdōn'ik) *a.* [Gk. *adelos*, concealed; *kodon*, bell.] *Appl.* undetached medusome of certain Gymnoblastera, which degenerates after discharging ripe sexual cells. *Opp.* phanerocodonic.

adelomorphic (ād'ēlōmōr'fik) *a.* [Gk. *adelos*, concealed; *morphe*, shape.] Indefinite in form; *appl.* central cells of peptic glands; adelomorphous.

adelomycete (ād'ēlōmī'sēt) *n.* [Gk. *adelos*, concealed; *mykes*, fungus.] A fungus lacking the sexual spore stage; imperfect fungus.

adelophycean (ād'ēllōfisē'an) *a.* [Gk. *adelos*, concealed; *phykion*, seaweed.] *Appl.* stage or generation of many seaweeds when they appear as prostrate microthalli.

adelphogamy (ādēlfōg'āmi) *n.* [Gk. *adelphos*, brother; *gamos*, marriage.] Brother-sister mating, as in certain ants.

adelphous (ādēl'fūs) *a.* [Gk. *adelphos*, brother.] Joined together in bundles, as filaments of stamens; *cf.* monadelphous, diadelphous.

adendritic (ād'dēndrit'ik) *a.* [Gk. *a*, not; *dendron*, tree.] Adendritic; without dendrites or branches; *appl.* cells.

adendroglia (ādēndrōglī'ā) *n.* [Gk. *a*, not; *dendron*, tree; *glōia*, glue.] A type of neuroglia lacking processes.

adenine (äd'ënín) *n.* [Gk. *aden*, gland.] A compound occurring in many cells, hydrolysed by adenase to hypoxanthine; $C_5H_5N_5$.

adenoblast (äd'ënöbläst) *n.* [Gk. *aden*, gland; *blastos*, bud.] Embryonic glandular cell.

adenocheiri (äd'ënöki'ri) *n. plu.* [Gk. *aden*, gland; *cheir*, hand.] Elaborate accessory copulatory organs, outgrowths of atrial walls in Turbellaria.

adenocyte (äd'ënösit) *n.* [Gk. *aden*, gland; *kytos*, hollow.] Secretory cell of a gland.

adenodactyli (äd'ënödäk'tili), *n. plu.* [Gk. *aden*, gland; *daktylos*, finger.] Adenocheiri, *q.v.*

adenohypophysis (äd'ënöhöp'isís) *n.* [Gk. *aden*, gland; *hypó*, under; *physis*, growth.] The glandular lobe or portions of the pituitary body, derived from Rathke's pouch.

adenoid (äd'ënoíd) *a.* [Gk. *aden*, gland; *eidos*, shape.] *Pert.* or resembling a gland or lymphoid tissue.

adenophore (äd'ënöför) *n.* [Gk. *aden*, gland; *pherein*, to carry.] The stalk of a nectar gland.

adenophyllous (äd'ënöfil'üs) *a.* [Gk. *aden*, gland; *phyllon*, leaf.] Bearing glands on leaves.

adenopodous (äd'ënöp'ödüs) *a.* [Gk. *aden*, gland; *pous*, foot.] Bearing glands on peduncles or petioles.

adenose (äd'ënös) *a.* [Gk. *aden*, gland.] Glandular.

adenostemonous (äd'ënöstëm'önüs) *a.* [Gk. *aden*, gland; *stemon*, spun thread.] Having glands on stamens.

adequate,—*appl.* stimulus which normally acts on a given receptor, and induces the appropriate sensation.

adermin,—vitamin B_6 , rat anti-dermatitis factor; pyridoxine.

adesmic (ädës'mík) *a.* [Gk. *adesmos*, unfettered.] *Appl.* cyclomerial scales made up of separate lepidomerial units; *cf.* monodesmic, polydesmic.

adesmy (ädës'mi) *n.* [Gk. *adesmos*, unfettered.] A break or division in an organ usually entire.

adetopneustic (äd'ëtönü'stik) *a.* [Gk. *adetos*, free; *pnein*, to breathe.] Having dermal gills occurring beyond abactinal surface, as in certain stelleroids.

adfrontal (ädfrün'täl) *a.* [L. *ad*, to; *frons*, forehead.] *Appl.* oblique plates beside frons of certain insect larvae.

adherent (ädhë'rënt) *a.* [L. *ad*, to; *haerere*, to stick.] Exhibiting adhesion, *q.v.*; attached to substratum, *appl.* zoecia of polyzoan colony.

adhesion (ädhë'zhün) *n.* [L. *ad*, to; *haerere*, to stick.] Condition of touching without growing together of parts normally separate, as between members of different series of floral leaves; *cf.* cohesion.

adhesive cells,—various glandular or specialised cells for purposes of attachment; as on tentacles of Ctenophora, on epidermis of Turbellaria, on pedal disc of Hydra.

adience (äd'iëns) *n.* [L. *adire*, to approach.] Urge, or advance, towards stimulus; approaching reaction. *Opp.* abience.

adient (äd'iënt) *a.* [L. *adire*, to approach.] Approaching the source of stimulation. *Opp.* abient.

adipocellulose (äd'ipösël'ülös) *n.* [L. *adepts*, fat; *cellula*, small cell.] Cellulose with a large amount of suberin, as in cork tissue.

adipocyte (äd'ipösit) *n.* [L. *adepts*, fat; Gk. *kytos*, hollow.] One of the cells forming the fat-body in insects.

adipoleucocyte (äd'ipölü'kösit, -loo-) *n.* [L. *adepts*, fat; Gk. *leukos*, white; *kytos*, hollow.] A leucocyte containing fat droplets or wax, in insects.

adipolysis (ädipöl'isís) *n.* [L. *adepts*, fat; Gk. *lysis*, loosing.] Splitting or hydrolysis of fats by enzymes, as during digestion; lipolysis.

adipose (äd'ipös) *a.* [L. *adepts*, fat.] *Pert.* animal fat; fatty.

A-disc,—doubly refracting or anisotropic band in myofibrillae; Q-disc.

aditus (äd'itūs) *n.* [L. *aditus*, entrance.] Anatomical structure forming approach or entrance to a part, *e.g.* to antrum, larynx, etc.

adjustor (ädjüs'tör) *n.* [L.L. *adjustare*, to adjust, from L. *ad*, to; *justus*, just.] A muscle connecting stalk and valve in Brachiopoda; ganglionic part of a reflex arc, connecting receptor and effector.

adlacrima (ädläk'rimal) *n.* [L. *ad*, to; *lacrima*, tear.] Lacrimal bone of reptiles.

admedial (ädmē'diäl) *a.* [L. *ad*, towards; *medius*, middle.] Near the middle, mediad; near the median plane, admedian.

adminiculum (äd'mīnlk'ülüm) *n.* [L. *adminiculum*, support.] A locomotory spine of certain pupae; posterior fibres of linea alba attached to os pubis.

adnasal (ädnä'zäl) *n.* [L. *ad*, to; *nasus*, nose.] A small bone in front of each nasal in certain fishes.

adnate (ädnä't) *a.* [L. *ad*, to; *gnatus*, born.] *Pert.* or designating the condition of being closely attached to side of petiole or stalk, as stipules or leaves; designating condition of anther with back attached throughout its length to filament, or to its continuation the connective; conjoined.

adnephrene,—adrenaline.

adnexa (ädnek'sä) *n. plu.* [L. *ad*, to; *nectere*, to bind.] Structures or parts closely related to an organ; extra-embryonic structures, as foetal membranes, placenta.

adnexed (ädnekst') *a.* [L. *ad*, to; *nectere*, to bind.] Reaching to the stem only.

adolescaria (ädölēskä'rīä) *n.* [L. *adolescere*, to grow up.] Encysted stage, between cercaria and marita, in trematodes; metacercaria.

adoral (ädö'räl) *a.* [L. *ad*, to; *os*, mouth.] Near or *pert.* mouth.

adpressed (äd'prēst) *a.* [L. *ad*, to; *pressus*, pressed.] Closely applied to a surface; appressed.

adradius (ädrä'diūs) *n.* [L. *ad*, to;

radius, radius.] In coelenterates, the radius midway between per-radius and interradius, a radius of third order.

adrectal (ädrēk'täl) *a.* L. *ad* to; *rectum*, rectum.] Near to or closely connected with rectum.

adrenal (ädrē'näl) *a.* [L. *ad*, to; *renes*, kidneys.] Situated near kidneys; suprarenal, *appl.* glands, the endocrines secreting hormones affecting the sympathetic nervous system and blood pressure; *appl.* organs, the suprarenal and interrenal glands, and chromaphil bodies.

adrenaline (ädrēn'älīn, ädrēn'älēn) *n.* [L. *ad*, to; *renes*, kidneys.] A hormone obtained from extract of suprarenal medulla; adrenalin, adrenin, suprarenin, epinephrin; $C_9H_{13}O_3N$.

adrenergic (ädrēnēr'jīk) *a.* [L. *ad*, to; *renes*, kidneys; Gk. *ergon*, work.] *Appl.* sympathetic nerves, which liberate sympathin or an adrenaline-like principle from their terminations; adrenalnergic; *cf.* cholinergic.

adrenin(e),—adrenaline.

adrenocortical (ädrē'nökôr'tīkäl) *a.* [L. *ad*, to; *renes*, kidneys; *cortex*, bark.] *Pert.*, or secreted in, the adrenal cortex.

adrenocorticotrophic (ädrē'nökôr'tīkötroph'īk) *a.* [L. *ad*, to; *renes*, kidneys; *cortex*, bark; Gk. *trophe*, nourishment.] *Appl.* hormone secreted by anterior lobe of pituitary gland and which controls activity of adrenal cortex; ACTH.

adrenotropic (ädrēnötroph'īk) *a.* [L. *ad*, to; *renes*, kidneys; Gk. *trophe*, turn.] Adrenotrophic; *appl.* a pituitary hormone acting on the adrenal medulla.

adrostral (ädrös'träl) *a.* [L. *ad*, to; *rostrum*, beak.] Near to or closely connected with beak or rostrum.

adsorption (ädsörp'shün) *n.* [L. *ad*, to; *sorbere*, to suck in.] The adhesion of molecules to solid bodies; formation of unimolecular surface layer.

adtidal (ăd'tidāl) *a.* [L. *ad*, to; A.S. *tid*, time.] *Appl.* organisms living just below low-tide mark.

adultoid,—*appl.* nymph having imaginal characters differentiated further than in normal nymph.

aduncate (ădŭng'kāt) *a.* [L. *aduncus*, hooked.] Crooked; bent in the form of a hook.

advehent (ad'vehēnt) *a.* [L. *advehere*, to carry to.] Afferent; carrying to an organ.

adventitia (ădvēntish'īā) *n.* [L. *adventitiuus*, extraordinary.] External connective tissue layer of blood vessels; tunica adventitia.

adventitious (ădvēntish'ūs) *a.* [L. *adventitiuus*, extraordinary.] Accidental; found in an unusual place; *appl.* tissues and organs arising in abnormal positions; secondary, *appl.* dentine.

aecia,—*plu.* of aecium.

aecial,—*aecidial*.

aecidia,—*plu.* of aecidium.

aecidial (ēsīd'īāl) *a.* [L. *aecidium*, cup.] *Pert.* aecidia, or aecidium; *appl.* primordium.

aecidiosorus (ēsīd'īōsō'rūs) *n.* [L. *aecidium*, cup; Gk. *soros*, heap.] A cluster or row of aecidiospores.

aecidiospores (ēsīd'īōspōrz') *n. plu.* [L. *aecidium*, cup; Gk. *sporos*, seed.] The spores produced in an aecidium; spring-spores.

aecidium (ēsīd'īūm) *n.* [L. *aecidium*, cup.] A cup-shaped structure containing simple sporophores, bearing rows of spores; cluster-cup of rusts.

aeciospores,—*aecidiospores*, *q.v.*

aecium,—*aecidium*, *q.v.*

aedeagus (ēdē'āgūs) *n.* [Gk. *aidōia*, genitals.] The male intromittent organ of insects; also aedoeagus.

aegithognathous (ē'jīthōg'nāthūs) *a.* [Gk. *aigithos*, hedge-sparrow; *gnathos*, jaw.] With maxillo-palatines separate, vomers forming a wedge in front and diverging behind; *appl.* a type of palate found in Passeres.

aeolian (ēōl'īān) *a.* [L. *Aeolus*, god of the winds.] Wind-borne; *appl.* deposits.

aerenchyma (ăērēng'kīmă) *n.* [Gk.

aer, air; *engchyma*, infusion.] Tissue between spore mass and capsule wall in mosses; cortex of submerged roots of certain swamp plants; aerating cortical tissue in floating portions of some aquatic plants.

aerial (ăē'riāl) *a.* [L. *aer*, air.] Inhabiting the air; *appl.* roots growing above ground, *e.g.* from stems of ivy, for purposes of climbing; also to small bulbs appearing in leaf-axils.

aero-aquatic (ă'ērōākwt'īk) *a.* [L. *aer*, air; *aqua*, water.] *Appl.* or *pert.* fungi growing in water and liberating spores in the air.

aerobe (ă'ērōb) *n.* [Gk. *aer*, air; *bios*, life.] An aerobic organism, capable of living in presence of oxygen. *Opp.* anaerobe.

aerobic (ă'ērōb'īk) *a.* [Gk. *aer*, air; *bios*, life.] Thriving only in presence of free oxygen.

aerobiology (ă'ērōbiōl'ōjī) *n.* [Gk. *aer*, air; *bios*, life; *logos*, discourse.] The study of airborne organisms and their distribution; biology of aeroplankton.

aerobiosis (ă'ērōbiō'sīs) *n.* [Gk. *aer*, air; *biosis*, manner of life.] Existence in presence of oxygen.

aerocyst (ă'ērōsist) *n.* [Gk. *aer*, air; *kystis*, bladder.] An air vesicle of algae.

aerogenic (ă'ērōjēn'īk) *a.* [Gk. *aer*, air; *gennaein*, to produce.] Gas-producing; *appl.* certain bacteria.

aeromorphosis (ă'ērōmōr'fōsis, -mōrfō'sīs) *n.* [Gk. *aer*, air; *morphosis*, form.] Modification of form or structure owing to exposure to air or wind.

aerophora (ă'ērōf'ōrā) *n.* [Gk. *aer*, air; *pherein*, to bear.] Aerating outgrowth or pneumatophore in certain ferns.

aerophyte (ă'ērōfit) *n.* [Gk. *aer*, air; *phyton*, plant.] A plant growing attached to an aerial portion of another plant; epiphyte.

aeroplankton (ă'ērōplāngk'tōn) *n.* [Gk. *aer*, air; *planktos*, wandering.] Living particles drifting in the air, as spores, pollen, bacteria, etc.; also applied to non-living particles.

aerostat (ă'ēröstăt) *n.* [L. *aer*, air; *stare*, to stand.] An air-sac in insect body or in bird bone.

aerostatic (ă'ēröstăt'ík), *a.* [L. *aer*, air; *stare*, to stand.] Pneumatic; containing air-spaces.

aerotaxis (ă'ērötăk'sís) *n.* [Gk. *aer*, air; *taxis*, arrangement.] The arrangement of bacteria and other micro-organisms towards or away from oxygen.

aerotropic (ă'ērötröp'ík) *a.* [Gk. *aer*, air; *trope*, turn.] *Appl.* curvature of a plant organ towards a higher concentration of oxygen.

aerotropism (ăeröt'röpizm) *n.* [Gk. *aer*, air; *trope*, turn.] Reaction to gases, generally to oxygen.

aesthacyte (ēs'thāsīt) *n.* [Gk. *aisthesis*, sensation; *kytos*, hollow.] A sensory cell of primitive animals.

aesthesia (ēs'thē'sís) *n.* [Gk. *aisthesis*, sensation.] Sensibility; sense-percept; aesthesia.

aesthetasc (ēs'thē'tăsk) *n.* [Gk. *aisthetes*, perceiver; *askein*, to exercise.] An olfactory receptor on antennule of daphnids.

aesthetes (ēs'thē'tēz) *n. plu.* [Gk. *aisthetes*, perceiver.] Sense organs.

aestival (ēs'tī'văl, ēs'tīvăl) *a.* [L. *aestivus*, of summer.] Produced in, or *pert.* summer.

aestivation (ēs'tīvă'shŭn) *n.* [L. *aestivus*, of summer.] The mode in which different parts of flower are disposed in flower-bud; prefloration; torpor during summer, as in some animals; dormancy during heat and drought period, *opp.* hibernation.

aethalium (ēthă'lĭŭm) *n.* [Gk. *aithalos*, soot.] An aggregation of plasmodia or sporangia to form a compound fruit in Mycetozoa or Myxomycetes.

aethogametism (ăē'thögămē'tizm) *n.* [Gk. *aēthes*, unaccustomed; *gametes*, spouse.] Gametal incompatibility or asynethogametism, *q.v.*; aethogamety.

aetiology (ētĭöl'ŏjĭ) *n.* [Gk. *aitia*, cause; *logos*, discourse.] The science of causation; or origin of causes; also etiology.

afferent (ăf'ērēnt) *a.* [L. *afferre*, to bring.] Bringing towards; *appl.* nerves carrying impulses to nervous centres; *appl.* blood-vessels carrying blood to an organ or set of organs.

aflagellar (ă'flăjěl'ăr) *a.* [Gk. *a*, without; L. *flagellum*, whip.] Without a flagellum.

afterbirth (ăf'tərbērth) *n.* [A.S. *aefter*, behind; *beran*, to bring forth.] Placenta and foetal membranes expelled after offspring.

after-brain,—myelencephalon, *q.v.*

aftershaft (ăf'tērshăft) *n.* [A.S. *aefter*, behind; O.E. *sceaft*, shaft.] A small tuft of down near superior umbilicus of a feather.

agameon (ăgămē'ŏn) *n.* [Gk. *a*, without; *gamos*, marriage, *on*, being.] A species comprising only apomictic individuals.

agamete (ăg'ămēt) *n.* [Gk. *a*, without; *gameles*, spouse.] An amoebula, or germ cell, which develops directly without syngamy into an adult.

agametoblast (ăgămē'töblăst) *n.* [Gk. *a*, not; *gameles*, spouse; *blastos*, bud.] A cytomere, *q.v.*, of Caryotropha.

agamic (ăgăm'ík), *a.* [Gk. *a*, without; *gamos*, marriage.] Asexual; parthenogenetic; agamous.

agamobium (ăg'ămöb'ĭŭm) *n.* [Gk. *a*, without; *gamos*, marriage; *bios*, life.] The asexual stage in metagenesis; and the sporophyte.

agamogenesis (ăg'ămöjēn'ēsís) *n.* [Gk. *a*, without; *gamos*, marriage; *genesis*, descent.] Asexual reproduction; parthenogenesis.

agamogenetic (ăg'ămöjēnēt'ík) *a.* [Gk. *a*, without; *gamos*, marriage; *genesis*, descent.] Asexual; produced asexually.

agamogony (ăg'ămög'ŏnĭ) *n.* [Gk. *a*, without; *gamos*, marriage; *gonos*, generation.] Schizogony, or reproduction without sexual process.

agamont (ăg'ămönt) *n.* [Gk. *a*, without; *gamos*, marriage; *on*, being.] A schizont, or that stage which gives rise to agametes.

agamosppecies (äg'âmöspē'shēz) *n.* [Gk. *a*, without; *gamos*, marriage; L. *species*, particular kind.] Species without sexual reproduction, as in parthenogenetic aneuploids.

agamous,—agamic, *q.v.*

agar (äg'är, ä'gär) *n.* [Mal. *agar-agar*, a sea-weed.] A medium for bacterial and other cultures, prepared from agar-agar, a gelatinous substance, also of dietary utility, yielded by red algae.

age and area,—hypothesis of Willis that older species occur in a more extensive area than that occupied by more recent species.

agenesis (äjēn'ēsīs) *n.* [Gk. *a*, not; *genesis*, origin.] Failure to develop; agenesis.

agennesis (äjēn'ēsīs) *n.* [Gk. *a*, without; *genesis*, an engendering.] Sterility.

ageotropic,—apogeotropic, *q.v.*

agglomerate (äglöm'ērät) *a.* [L. *ad*, to; *glomus*, ball.] Clustered, as a head of flowers; *appl.* adhering mass of protozoa, as in agglomeration of trypanosomes.

agglutinate (äglōot'inät) *v.* [L. *agglutinare*, to glue on.] To cause or to undergo agglutination. *n.* The mass formed by agglutination. *a.* stuck together; obtect, *q.v.*

agglutination (äglōotinä'shūn) *n.* [L. *ad*, to; *glutinare*, to glue.] The formation of clumps or floccules by pollen, bacteria, erythrocytes, spermatozoa, and some protozoa.

agglutinin (äglōot'inīn) *n.* [L. *ad*, to; *glutinare*, to glue.] A substance or specific antibody which causes agglutination.

agglutininogen (äglōotin'ōjēn) *n.* [L. *ad*, to; *glutinare*, to glue; Gk. *gennaen*, to produce.] Substance or antigen that produces agglutinin.

aggregate (äg'rägāt) *a.* [L. *ad*, to; *gregare*, to collect into a flock.] Formed in a cluster; *appl.* a fruit or etaerio formed from apocarpous gynoeceium of a single flower, as raspberry; *appl.* certain medullary rays; *appl.* a type of silk gland in certain spiders.

aggregation (ägrägā'shūn) *n.* [L. *ad*, to; *gregare*, to collect.] A grouping or crowding of separate organisms; movement of protoplasm in tentacle or tendril cells of sensitive plants, which causes tentacle or tendril to bend towards the point stimulated.

aggressin (ägrēs'in) *n.* [L. *aggressus*, attacked.] Toxic substance produced by pathogenic organisms, inhibiting defensive reactions of host.

aglomerular (äglömēr'ülär) *a.* [Gk. *a*, without; L. *glomerare*, to form into a ball.] Devoid of glomeruli, as kidney in certain fishes.

aglossate (äglös'ät) *n.* [Gk. *a*, without; *glossa*, tongue.] Having no tongue.

agminated (äg'minätēd) *a.* [L. *agmen*, a crowd.] Clustered; *appl.* glands, Peyer's patches.

agnathostomatous (ägnäth'östöm'ätüs) *a.* [Gk. *a*, without; *gnathos*, jaw; *stoma*, mouth.] Having mouth unfurnished with jaws, as lamprey; agnathous.

agon (äg'ön) *n.* [Gk. *agon*, contest.] The active principle of an enzyme; *cf.* pheron, symplex.

agonist (äg'önist) *n.* [Gk. *agonistes*, champion.] A prime mover or muscle directly responsible for change in position of a part.

agranular (ägrän'ülär) *a.* [L. *a*, away; *granulum*, small grain.] Without granules; without a conspicuous layer of granular cells, *appl.* cortex of brain: the motor areas.

agranulocyte (ägrän'ülösīt) *n.* [Gk. *a*, without; L. *granulum*, small grain; Gk. *kytos*, hollow.] A non-granular or lymphoid leucocyte.

agrestal (ägrēs'täl) *a.* [L. *agrestis*, rural.] *Appl.* plants growing on arable land.

agriotype (äg'riötīp) *n.* [Gk. *agrios*, wild; *typos*, image.] Wild or ancestral type.

agrostology (äg'röstöl'ōjī) *n.* [Gk. *agrostis*, grass; *logos*, discourse.] That part of botany dealing with grasses.

aheliotropism,—apheliotropism, *q.v.*
A-horizon,—the upper, or leached, soil layers.

air-bladder (ār'-blād'ēr) *n.* [*L. aer*, air; A.S. *bladre*, bladder.] The swim-bladder in fishes; hollow dilatation of thallus in bladder-wrack.

air-cells,—thin-walled cavities in ethmoidal labyrinth; numerous cavities in mastoid; alveoli of lungs; air spaces in plant tissue.

air chamber,—gas-filled compartment of Nautilus shell. previously occupied by the animal.

air-duct,—duct connecting the swim-bladder and gut of certain fishes.

air-pore,—stoma, *q.v.*, of plants.

air-sacs,—spaces filled with air and connected with lungs in birds; dilatations of tracheae in many insects; sacs representing tracheal system and having hydrostatic function in certain insect larvae.

air sinuses,—cavities in frontal ethmoid, sphenoid and maxillary bones, with passages to nasal cavities.

aitiogenic (i'tiōjēn'ik) *a.* [*Gk. aitos*, causing; *gennaein*, to generate.] Resulting from causation; *appl.* reaction, as movement induced by an external agent.

aitionastic (i'tiōnās'tik) *a.* [*Gk. aitos*, causing; *nastos*, close-pressed.] *Appl.* curvature of part of a plant and induced by a diffuse stimulus.

akanth,—see *acanth*.

akaryocyte,—akaryote; an erythrocyte.

akaryote (ākār'iōt) *n.* [*Gk. a*, without; *karyon*, nut.] A cell in which nucleoplasm has not collected together to form a nucleus; a non-nucleated cell, condition present in many protista. *a.* Non-nucleated.

akene,—achene.

akinesis (ākīnēs'is) *n.* [*Gk. a*, not; *kinesis*, movement.] Absence or arrest of motion.

akinete (āk'inēt) *n.* [*Gk. a*, not; *kinein*, to move.] A resting cell

in certain green algae, which will later reproduce.

ala (ā'lā, ālā) *n.* [*L. ala*, wing.] Any winglike projection or structure; lateral petal of papilionaceous flowers; membranous expansion on some seeds; basal lobe of moss leaves. *Plu.* *alae*.

alar (ā'lār) *a.* [*L. ala*, wing.] Wing-like; *pert.* wings or *alae*; axillary; *appl.* ligaments, cartilages, etc.

alary (āl'ār) *a.* [*L. ala*, wing.] Wing-like; *pert.* wings.

alate (āl'āt) *a.* [*L. alatus*, winged.] Having a wing-like expansion, as of petiole or stem; broad-lipped, *appl.* shells; *appl.* a spicular system in Calcareia which is sagittal because of inequality of angles; winged.

albedo (ālbē'dō) *n.* [*L. albus*, white.] Diffused reflection, the ratio of the amount of light reflected by a surface to the amount of incident light; mesocarp of hesperidium, *cf.* flavedo.

albescence (ālbēs'ent) *a.* [*L. albescere*, to grow white.] Growing whitish.

albicant (āl'bīkānt) *a.* [*L. albicare*, to be white.] Tending to become white.

albinism (āl'binīzm) *n.* [*L. albus*, white.] Absence of pigmentation in animals normally pigmented; state of having colourless chromatophores.

albino (ālbē'nō, ālbī'nō) *n.* [*Sp. albino*, white, from *L. albus*.] Any animal with congenital deficiency of pigment in skin, hair, eyes, etc.; a plant with colourless chromatophores, due to absence of chloroplasts or undeveloped chromatoplasts.

albuginea (ālbūjīn'ēā) *n.* [*L. albus*, white; *gignere*, to beget.] Tunica albuginea; white, dense connective tissue surrounding testis, ovary, corpora cavernosa, spleen, or eye.

albumen (ālbū'mēn) *n.* [*L. albumen*, white of egg.] White of egg; nutritive material stored in seed.

albumin (älbū'mín) *n.* [*L. albumen*, white of egg.] One of a group of heat-coagulable, water-soluble proteins occurring in egg-white, blood serum, milk, and many animal and vegetable tissues.

albuminoids (älbū'mínoidz) *n. plu.* [*L. albumen*, white of egg; *Gk. eidos*, form.] Scleroproteins, *q.v.*

albuminous (älbū'mínūs) *a.* [*L. albumen*, white of egg.] *Pert.*, containing, or of nature of, albumen or an albumin.

albuminous cells,—parenchyma cells associated with sieve cells, as in pteridophytes and gymnosperms.

alburnum (älbūr'nūm) *n.* [*L. albus*, white.] Sap-wood or splint-wood, soft white substance between inner bark and true wood; outer young wood of dicotyledon.

alecithal (älēs'íthāl) *a.* [*Gk. a*, without; *lekithos*, yolk.] With little or no yolk; *appl.* ova; alecithic.

alepidote (älēp'idōt) *a.* [*Gk. a*, not; *lepidotos*, scaly.] Without scales.

aletocyte (älē'tösīt) *n.* [*Gk. aletes*, wanderer; *kytos*, hollow.] Wandering cell.

aleurispore,—aleurospore.

aleuron (äl'ūrōn) *n.* [*Gk. aleuron*, flour.] *Appl.* protein grains found in general protoplasm and used as reserve food-material; *appl.* layer containing protein, of endosperm in monocotyledons; aleurone.

aleurospore (äl'ūrōspōr) *n.* [*Gk. aleuron*, flour; *sporos*, seed.] A lateral conidium of certain fungous parasites of skin; spore or tip early separated from hypha by a septum, or by contraction of protoplasm; aleuriospore, aleuriispore, aleurium.

alexine (älēk'sín) *n.* [*Gk. alexein*, to ward off.] A substance in blood serum which combines with an amboceptor to produce lysis; alexin; complement.

algēsis (äljē'sis) *n.* [*Gk. algēsis*, sense of pain.] The sense of pain.

algalcolous (äljik'ölūs) *a.* [*L. alga*, seaweed; *colere*, to inhabit.] Living on algae.

algin (äl'jin) *n.* [*L. alga*, seaweed.] A mucilaginous substance, alginic acid, obtained from certain algae.

algoid (äl'goid) *a.* [*L. alga*, seaweed; *Gk. eidos*, shape.] *Pert.*, resembling, or of the nature of an alga.

algology (älgöl'ōjt) *n.* [*L. alga*, seaweed; *Gk. logos*, discourse.] The study of algae; phycology.

Algonkian (älgōng'kiän) *a.* [*Algonquian* tribe of Indians.] *Pert.* late Proterozoic era.

aliform (ä'lifōrm) *a.* [*L. ala*, wing; *forma*, shape.] Wing-shaped; *appl.* muscles, as in insects.

alima (äl'imä) *n.* [*Gk. halimos*, *pert.* sea.] A larval stage of certain Crustacea.

alimentary (äl'imēn'täri) *a.* [*L. alimentarius*, *pert.* sustenance.] *Pert.* nutritive functions; *appl.* system, canal, tract, etc.

alimentation (äl'imēntä'shūn) *n.* [*L. alimentum*, nourishment.] The process of nourishing or of being nourished.

alisphenoid (äl'isfē'noid) *n.* [*L. ala*, wing; *Gk. sphēn*, wedge; *eidos*, form.] Wing-like portion of sphenoid forming part of cranium; ala temporalis.

alitrunk (äl'itrūngk) *n.* [*L. ala*, wing; *truncus*, trunk.] Thorax of insect when fused with first segment of abdomen.

alkaline gland,—a gland opening at base of sting of certain Hymenoptera; Dufour's gland.

alkaloid (äl'kälōid) *n.* [*Ar. al*, the; *qali*, ash; *Gk. eidos*, form.] Basic nitrogenous organic substance with poisonous or medicinal properties, as caffeine, morphine, nicotine, strychnine, ptomaine, etc.

allaesthetic (äl'ēsthēt'ik) *a.* [*Gk. allos*, other; *aisthetes*, perceiver.] *Appl.* characters effective when perceived by other organisms.

allantochorion (älän'tōkō'rīōn) *n.* [*Gk. allas*, sausage; *chorion*, skin.] Foetal membrane formed of outer wall of allantois and the primitive chorion; true chorion.

allantoid (ālān'toid) *a.* [Gk. *allas*, sausage; *eidos*, form.] Sausage-shaped; botuliform.

allantoin (ālān'tōin) *n.* [Gk. *allas*, sausage.] The end-product of purine metabolism, occurring in allantoinic fluid and urine of certain mammals; $C_4H_4O_3N_4$.

allantois (ālān'tōis) *n.* [Gk. *allas*, sausage.] An embryonic organ, a membranous sac arising from posterior part of alimentary canal in higher vertebrates, and acting as an organ of respiration or nutrition or both.

allassotonic (ālās'ōtōn'ik) *a.* [Gk. *allassein*, to change; *tonos*, strain.] Induced by stimulus, *appl.* movements of grown plants; *cf.* auxotonic.

allatectomy (ālātēk'tōmī) *n.* [L. *allatum*, aided; Gk. *ektome*, a cutting out.] Excision or removal of corpora allata.

allele (ālēl') *n.* [Gk. *allelon*, one another.] Allelomorph.

allelism (ālē'lizm) *n.* [Gk. *allelon*, one another.] The relationship between two alleles; allelomorphism.

allelocatalysis (ālē'lōkātāl'isis) *n.* [Gk. *allelon*, one another; *katalysis*, dissolution.] Allelocatalytic or mutually accelerating or retarding effect of contiguous cells; *e.g.* acceleration of rate of fission with increase in number of individual protozoa present.

allelomorph (ālē'lōmōrf) *n.* [Gk. *allelon*, one another; *morphe*, form.] One of any pair of alternative hereditary characters; gene which can occupy the same locus as another gene in a particular chromosome; allele.

allelopathy (ālēlōp'āthī) *n.* [Gk. *allelon*, one another; *pathos*, suffering.] The influence or effect of one living plant upon another.

allergen (āl'ērjēn) *n.* [Gk. *allos*, other; *ergon*, activity; *-genes*, producing.] A substance which induces allergy; atopen.

allergy (āl'ērjī) *n.* [Gk. *allos*, other;

ergon, activity.] Changed reactivity on second or subsequent infection or poisoning; exaggerated or unusual susceptibility; anaphylaxis; atopy, *q.v.*

allesthetic,—**allaesthetic**, *q.v.*

alliaceous (ālīā'shūs) *a.* [L. *allium*, garlic.] *Pert.* or like garlic; *appl.* a class of odours.

allobiosis (āl'ōbiō'sis) *n.* [Gk. *allos*, other; *biosis*, manner of life.] Changed reactivity of an organism in a changed internal or external environment.

allocarpy (āl'ōkārpī) *n.* [Gk. *allos*, other; *karpōs*, fruit.] The production of fruit after cross-fertilisation.

allocheiral (āl'ōkī'rāl) *a.* [Gk. *allos*, other; *cheir*, hand.] Having right and left sides reversed; *pert.* reversed symmetry.

allochroic (āl'ōkrō'ik) *a.* [Gk. *allos*, other; *chros*, colour.] Able to change colour; with colour variation.

allochronic (āl'ōkrōn'ik) *a.* [Gk. *allos*, other; *chronos*, time.] Not contemporary; *appl.* species, etc. *Opp.* synchronic.

allochthonous (ālōk'thōnūs) *a.* [Gk. *allos*, other; *chthon*, the ground.] Exotic; not aboriginal; acquired. *Opp.* autochthonous.

allocortex (āl'ōkōr'tēks) *n.* [Gk. *allos*, other; L. *cortex*, bark.] The primitive cortical areas or cortex of olfactory brain, *opp.* isocortex.

alogamous (ālōg'āmūs) *a.* [Gk. *allos*, other; *gamos*, marriage.] Reproducing by cross-fertilisation, *opp.* autogamous.

alogamy (ālōg'āmī) *n.* [Gk. *allos*, other; *gamos*, marriage.] Cross-fertilisation, *opp.* autogamy.

alogene (āl'ōjēn) *n.* [Gk. *allos*, other; *genos*, descent.] A recessive allele; *opp.* protogene.

allogenic (ālōjēn'ik) *a.* [Gk. *allos*, other; *genos*, descent.] Caused by external factors; *appl.* plant successions; *pert.* allogenes; derived from elsewhere, *opp.* autogenic; alienous or exogenous, *opp.* endogenous; allochronic, *q.v.*

alloheteroploid (äl'öhét'ëröplöid) *n.*

[Gk. *allos*, other; *heteros*, other; *aploos*, onefold; *eidōs*, form.] Heteroploid derived from specifically distinct genomes.

alloiogenesis (äl'oiöjén'ésis) *n.* [Gk.

alloios, different; *genesis*, descent.] The alternation, in a life-history, of a sexual and a non-sexual form; alternation of generations.

alloiometron (äl'oiöm'ëtrōn) *n.* [Gk.

alloios, different; *metron*, measure.] Measurable change of proportion or intensity of development within species or races, e.g. head, limb, tooth, etc. proportions.

allokinesis (äl'ökinē'sis) *n.* [Gk.

allos, other; *kinesis*, movement.] Reflex, or passive, movement; involuntary movement.

allometry (älöm'ëtri) *n.* [Gk. *allos*,

other; *metron*, measure.] Study of relative growth; change of proportions with increase of size; growth rate of a part differing from a standard growth rate or from the growth rate of the whole.

alloparalectotype (äl'öpärälék'tötíp)

n. [Gk. *allos*, other; *para*, beside; *lektos*, chosen; *typos*, pattern.] Specimen, from the original collection, of the sex opposite to that of the holotype, and described subsequently.

allopatric (älöpät'rik) *a.* [Gk. *allos*,

other; *patra*, native land.] Having separate and mutually exclusive areas of geographical distribution. *Opp.* sympatric.

allopelagic (äl'öpélāj'ík) *a.* [Gk.

allos, other; *pelagos*, sea.] *Pert.* organisms found at any depth of the sea.

allophore (äl'öfōr) *n.* [Gk. *allos*,

other; *pherein*, to bear.] A cell or chromatophore containing red pigment, in skin of fishes, amphibians, and reptiles.

allophytoid (älöf'itoid) *n.* [Gk.

allos, other; *phytos*, growing; *eidōs*, form.] A propagative bud, differing from a vegetative bud; a bulbil, as in some lilies.

alloplasm (äl'öplāzm) *n.* [Gk. *allos*,

other; *plasma*, mould.] The differentiated portion of cell-substance not forming independent organelles.

alloplasmatic (äl'öplāzmät'ík) *a.*

[Gk. *allos*, other; *plasma*, mould.] *Appl.* differentiated portion of cell protoplasm; alloplasmic.

alloplast (äl'öpläst) *n.* [Gk. *allos*,

other; *plastos*, formed.] A morphological cell-unit of more than one kind of tissue. *Opp.* homoplast,

allopolyploid (äl'öpól'iploid) *n.* [Gk.

allos, other; *polys*, many; *aploos*, onefold; *eidōs*, form.] An organism with more than two sets of chromosomes derived from different species by hybridisation.

allorhizal (äl'örī'zāl) *a.* [Gk. *allos*,

other; *rhiza*, root.] Having opposed root and shoot poles. *Opp.* homorhizal.

all-or-none,—principle that response

to a stimulus is either completely effected or is absent, first observed in heart muscle (Bowditch's law).

alloscutum (äl'öskū'tum) *n.* [Gk.

allos, another; *L. scutum*, shield.] Dorsal area or sclerite behind scutum in larval ticks; *cf.* conscutum.

allosematic (äl'ösēmät'ík) *a.* [Gk.

allos, other; *sema*, sign.] Having markings or coloration imitating warning signs in other, usually dangerous, species.

allosomal (äl'ösō'mäl) *a.* [Gk. *allos*,

other; *soma*, body.] *Pert.* allosome; *appl.* inheritance of characters controlled by genes located in an allosome.

allosome (äl'ösōm) *n.* [Gk. *allos*,

other; *soma*, body.] A chromosome other than an ordinary or typical one; heterochromosome, *opp.* autosome.

allostoses (äl'östō'sēs) *n. plu.* [Gk.

allos, other; *osteon*, bone.] Bones formed in membrane; *cf.* autostoses.

allosynapsis,—allosyndesis, *q.v.*

allosyndesis (äl'ösīn'dēsis) *n.* [Gk.

allos, other; *syndesis*, a binding together.] Pairing of homologous chromosomes from opposite parents, in a polyploid; *cf.* autosyndesis.

allotetraploid,—amphidiploid, *q.v.*

allotherm (äl'ôthêrm) *n.* [Gk. *allos*, other; *therme*, heat.] An organism with body temperature dependent on environmental temperature.

allotrophic (äl'ôtrôf'ik) *a.* [Gk. *allos*, other; *trophe*, nourishment.] Obtaining nourishment from other organisms; saprophytic, or saprozoic; heterotrophic.

allotropic (älôtrôp'ik) *a.* [Gk. *allos*, other; *tropikos*, turning.] Exhibiting mutual tropism, as between gametes.

allotropous (älôt'röpüs) *a.* [Gk. *allos*, any other; *tropos*, direction.] Not limited to, or adapted to, visiting special kinds of flowers, as certain insects. *Opp.* eutropous.

allotype (äl'ôtip) *n.* [Gk. *allos*, other; *typos*, pattern.] Paratype of the sex opposite to that of the holotype.

allozygote (äl'ôzi'gôt) *n.* [Gk. *allos*, other; *zygon*, yoke.] A homozygote having recessive characters, *opp.* protozygote.

alluvial (älü'viäl, äloo-) *a.* [L. *alluere*, to wash to.] *Fert.* deposits formed by finely divided material laid down by running water.

alpha (α) cells,—oxyphilic cells in pars glandularis of pituitary gland; cells with granules insoluble in alcohol, in islets of Langerhans; A-cells.

alpha (α) granules,—metachromatic granules in central region of protoplast, as in blue-green algae.

alpha (α) tocopherol,—vitamin E.

aliphitomorphic (äl'fitômôr'fūs) *a.* [Gk. *alphiton*, pearl-barley; *morphe*, form.] Having the appearance of peeled barley; *appl.* certain fungi.

alsinaceous (älsinä'shüs) *a.* [Gk. *alsine*, chickweed.] *Appl.* polypetalous corolla where intervals occur between petals, as in chickweed.

alteration theory,—explains electromotive forces of nerve and muscle by alterations in chemical composition of tissue at cross-section.

alternate (ôltêr'nât, äl-) *a.* [L.

alternus, one after another.] Not opposite; *appl.* leaves, branches, etc., occurring at different levels successively on opposite sides of stem; every other; taking turns.

alternating cleavage,—spiral cleavage, *q.v.*

alternation of generations,—the occurrence in one life-history of two or more different forms differently produced, usually an alternation of a sexual with an asexual form; alloiogenesis; metagenesis; digenesis; heterogamy; heterogenesis; heterogony.

alternation of parts,—general rule that leaves of different whorls alternate in position with each other, sepals with petals, stamens with petals.

alternative inheritance,—allelism, allelomorphism.

alterne (ältêrn', ôl-) *n.* [L. *alternus*, one after another.] Vegetation exhibiting disturbed zonation due to abrupt change in environment, or to interference with normal plant succession.

alternipinnate (ältêr'nîpîn'ât, ôl-) *a.* [L. *alternus*, one after another; *pinna*, wing.] *Appl.* leaflets or pinnae arising alternately on each side of mid-rib.

altrices (ältri'sêz) *n. plu.* [L. *altrix*, nourisher.] Birds whose young are hatched in a very immature condition; *cf.* praecoces.

altricial (ältris'iäl) *a.* [L. *altrix*, nourisher.] Requiring care or nursing after hatching or birth.

alula (äl'ülä) *n.* [L. *alula*, *dim.* of *ala*, wing.] A small lobe separated off from wing-base on its posterior edge in certain insects; lower tegula or squama thoracalis of Diptera; spurious or bastard wing of birds.

alutaceous (älütä'shüs) *a.* [L. *aluta*, alum-dressed leather.] Tan-coloured; leathery; having appearance of minute cracks, *appl.* markings on elytra of certain beetles.

alveola (äl'veölä) *n.* [L. *alveolus*, small cavity.] A pit on the surface of an organ; alveolus, *q.v.*

- alveolar** (äl'vööläär) *a.* [L. *alveolus*, small pit.] *Pert.* an alveolus; *pert.* tooth socket; *appl.* artery, nerve, process, canal, in connection with the jaw-bone; *appl.* small cavities in lungs, glands, etc.; *appl.* pores connecting adjacent to air-cells or pulmonary alveoli; *appl.* a theory of structure of protoplasm.
- alveolate** (äl'vööläät, älv'ölät) *a.* [L. *alveolatus*, pitted.] Deeply pitted or honey-combed.
- alveolation** (äl'vöölä'shün) *n.* [L. *alveolatus*, pitted.] The formation of alveoli; alveolate appearance.
- alveolus** (älv'ölüs) *n.* [L. *alveolus*, small pit.] A small pit or depression; tooth socket; pyramidal ossicle, supporting tooth in sea-urchin; air-cell of lung; a cavity in glands; cavity in tarsus of spiders, receptacle for haematochoa; pit for articulation of macrotrichia.
- alveus** (äl'vëtüs) *n.* [L. *alveus*, cavity.] A white layer of fibres on ventricular surface of hippocampus; utricle of ear; dilatation of thoracic duct.
- amacrine** (äm'äkrīn) *a.* [Gk. *a*, not; *makros*, long; *is*, fibre.] Having no conspicuous axon; *appl.* cells in inner nuclear layer of retina, with dendrites in inner plexiform layer.
- amb** (ämb) *n.* [L. *ambulare*, to walk.] Ambulacral area.
- ambiens** (äm'biēnz) *n.* [L. *ambire*, to go round.] A thigh muscle in certain birds, the action of which causes the toes to maintain grasp on perch.
- ambient** (äm'biēnt) *a.* [L. *ambire*, to go round.] Surrounding; *appl.* vein, the costal nerve when encircling insect wing.
- ambilateral** (äm'bīlät'ēräl) *a.* [L. *ambo*, both; *latus*, side.] *Pert.* both sides.
- ambiparous** (ämbīp'ärüs) *a.* [L. *ambo*, both; *parere*, to produce.] Containing the beginnings of both flowers and leaves; *appl.* buds.
- ambisexual** (äm'bīsēk'süäl) *a.* [L. *ambo*, both; *sexus*, sex.] *Pert.* both sexes; ambosexual; monoeocious, *q.v.*
- ambisporangiate** (äm'bīspörän'jiät) *a.* [L. *ambo*, both; Gk. *sporos*, seed; *anggeion*, vessel.] Amphisporangiate, *q.v.*
- ambital** (äm'bītäl) *a.* [L. *ambire*, to go round.] *Appl.* interambulacral and antambulacral plates of asteroids; outer skeleton of ophiuroid arm.
- ambitus** (äm'bītüs) *n.* [L. *ambitus*, going around.] The outer edge or margin; outline of echinoid shell viewed from apical pole.
- amblychromatic** (äm'blikrömät'ik) *a.* [Gk. *amblys*, dull; *chroma*, colour.] Staining or stained slightly. *Opp.* trachychromatic.
- amboceptor** (äm'bösēp'tör) *n.* [L. *ambo*, both; *capere*, to take.] A specific antibody or immune body necessary for ferment-like action of complement on a toxin or a red blood corpuscle; a lysin.
- ambon** (äm'bön) *n.* [Gk. *ambon*, raised platform.] Fibrocartilaginous ring surrounding an articular socket, as around acetabulum; circumferential fibrocartilage; labrum.
- ambosexual** (äm'bösēk'süäl) *a.* [L. *ambo*, both; *sexus*, sex.] Common to, or *pert.*, both sexes; activated by both male and female hormones.
- ambulacra** (äm'bülä'krä) *n. plu.* [L. *ambulare*, to walk.] Locomotor tube-feet of echinoderms.
- ambulacral**, —*pert.* or used for walking; *appl.* limbs of arthropods; *pert.* ambulacra.
- ambulacralia** (äm'büläkrä'līä) *n. plu.* [L. *ambulare*, to walk.] Ambulacral plates, *i.e.* plates through which tube-feet protrude.
- ambulacriform** (ämbüläk'rīfōrm) *a.* [L. *ambulare*, to walk; *forma*, shape.] Having the form or appearance of ambulacra.
- ameba**, —amoeba.
- ameiosis** (ämīō'sis) *n.* [Gk. *a*, without; *meiosis*, diminution.] Occurrence of only one division in meiosis instead of two.

ameiotic (āmīōt'ik) *a.* [Gk. *a*, without; *meion*, smaller.] *Appl.* parthenogenesis in which meiosis is suppressed.

amelification (āmēl'ifikā'shūn) *n.* [M.E. *amell*, enamel; L. *facere*, to make.] Formation of tooth-enamel.

ameloblast (āmēl'öbläst) *n.* [M.E. *amell*, enamel; Gk. *blastos*, bud.] A columnar or hexagonal cell of internal epithelium of enamel organ; enamel cell, adamantoblast, ganoblast.

amentaceous (āmēntā'shūs), **amentiferous** (āmēntif'ērūs) *a.* [L. *amentum*, thong; *ferre*, to carry.] *Appl.* plants bearing amenta or catkins.

amentum (āmēn'tūm) *n.* [L. *amentum*, thong.] A catkin, consisting of bracted axis bearing unisexual flowers, as in poplar and willow; ament.

ameristic (āmērīs'tik) *a.* [Gk. *a*, without; *meristos*, divided.] Not divided into parts; unsegmented.

ametabolic (āmēt'äböl'ik) *a.* [Gk. *a*, without; *metabole*, change.] Not changing form; *appl.* ciliates; *appl.* insects that do not pass through marked metamorphosis.

ametoecious (āmētē'siūs) *a.* [Gk. *a*, without; *meta*, after; *oikos*, house.] Parasitic on one host during one life cycle, *opp.* metoecious; autoecious, autoxenous.

amicron (āmī'krōn) *n.* [Gk. *a*, without; *mikros*, small.] An element so small that even the ultramicroscope can only indicate it as a diffuse illumination in the track of the beam; *cf.* submicron.

amicronucleate (āmī'krōnū'klēāt) *a.* [Gk. *a*, without; *mikros*, small; L. *nucleus*, kernel.] *Appl.* fragments of certain Protozoa in which there is no micronucleus.

amine (ām'in) *n.* [Gk. *ammoniakon*, resinous gum.] A nitrogen compound formed in plants, also produced by bacterial action on amino acids, a derivative from ammonia by hydrogen replacement.

amino acids,—compounds containing amino (NH₂) and carboxyl (COOH) groups, and produced from proteins by hydrolysis.

amitosis (āmītō'sis) *n.* [Gk. *a*, without; *mitos*, thread.] Direct cell-division and cleavage of nucleus without thread-like formation of nuclear material. *Opp.* mitosis.

ammochaeta (ämöke'tä) *n.* [Gk. *ammos*, sand; *chaite*, hair.] Bristle on head of desert ants, arranged in groups and used for removal of sand from forelegs.

ammonitiferous (äm'önitif'ērūs) *a.* [Gk. *Ammon*, Jupiter; L. *ferre*, to carry.] Containing fossil remains of ammonites.

amnion (äm'njön) *n.* [Gk. *amnion*, foetal membrane.] A foetal membrane of reptiles, birds, and mammals; inner embryonic membrane of insects; viscous envelope of certain ovules.

amnionic,—amniotic.

amniote (äm'njōt) *n.* [Gk. *amnion*, foetal membrane.] An animal characterised by possession of amnion in foetal life.

amniotic (ämniōt'ik) *a.* [Gk. *amnion*, foetal membrane.] *Pert.* amnion; *appl.* folds, sac, cavity, fluid; amnionic.

amoeba (ämē'bä) *n.* [Gk. *amoibe*, change.] A protozoon in which the shape is subject to constant alterations due to formation and retraction of pseudopodia; generally used to typify most primitive animal commonly known.

amoebadiastase (ämē'bādī'ästās) *n.* [Gk. *amoibe*, change; *dia*, through; *histanai*, to set.] The digestive ferment secreted by amoebae.

amoebiform (ämē'bifōrm) *a.* [Gk. *amoibe*, change; L. *forma*, shape.] Shaped like or resembling an amoeba.

amoebism (ämē'bīzm) *n.* [Gk. *amoibe*, change.] Amoeboid form or behaviour, as of leucocytes.

amoebocyte (ämē'bōsīt) *n.* [Gk. *amoibe*, change; *kytos*, hollow.] Any cell having the shape or

properties of an amoeba; one of certain cells in coelom of echinoderms; a leucocyte, *q.v.*

amoeboid (āmē'boid) *a.* [Gk. *amoibe*, change; *eidos*, shape.] Resembling an amoeba in shape, in properties, or in locomotion.

amoebola (āmē'būlā) *n.* [Gk. *amoibe*, change.] The swarm-spore of a protist when furnished with pseudopodia; pseudopodiospore.

amorphous (āmôr'fūs) *a.* [Gk. *a*, without; *morphe*, shape.] Of indeterminate or irregular form; with no visible differentiation in structure.

ampheclexis (ām'fēklēk'sis) *n.* [Gk. *amphi*, both; *eklexis*, choice.] Sexual selection.

ampherotoky,—amphitoky, *q.v.*

amphiapomict (ām'fiāp'ōmikt) *n.* [Gk. *amphi*, both; *apo*, away; *miktos*, mixed.] A biotype reproduced from facultative sexual forms.

amphiarthrosis (ām'fiārthrō'sis) *n.* [Gk. *amphi*, both; *arthron*, joint.] A slightly movable articulation, as a symphysis or a syndesmosis.

amphiaster (ām'fiās'tēr) *n.* [Gk. *amphi*, both; *aster*, star.] The two asters connected by the achromatic spindle formed in mitotic cell division; a sponge spicule star-shaped at both ends.

amphiastral (ām'fiās'trāl) *a.* [Gk. *amphi*, both; *aster*, star.] *Appl.* a type of mitosis in which true asters are present at the spindle-poles.

amphibian (āmfi'bī'ān) *a.* [Gk. *amphi*, both; *bios*, life.] Adapted for life either on land or in water; emersed, *q.v.*

amphibiotic (ām'fibiōt'ik) *a.* [Gk. *amphi*, both; *biotikos*, *pert.* life.] Living in water as a larva, on land in the adult stage.

amphibious,—amphibian, amphibiotic.

amphiblastic (ām'fiblās'tik) *a.* [Gk. *amphi*, both; *blastos*, bud.] *Appl.* telolecithal ova with complete but unequal segmentation.

amphiblastula (ām'fiblās'tulā) *n.*

[Gk. *amphi*, both; *blastos*, bud.] Stage in development of certain sponges, in which posterior end of embryo is composed of granular archaeocytes, and anterior end of flagellate cells.

amphibolic (ām'fībōl'ik) *a.* [Gk. *amphi*, both; *bole*, throw.] Capable of turning backwards or forwards, as outer toe of certain birds.

amphicarpous (ām'fikār'pūs) *a.* [Gk. *amphi*, both; *karpōs*, fruit.] Producing fruit of two kinds, amphicarpic.

amphicoelous (ām'fisē'lūs) *a.* [Gk. *amphi*, both; *koilos*, hollow.] Concave on both surfaces; *appl.* biconcave vertebral centra; amphicoelous.

amphicondylous (ām'fikōn'dilūs) *a.* [Gk. *amphi*, both; *kondylos*, knuckle.] Having two occipital condyles.

amphicone (ām'fikōn) *n.* [Gk. *amphi*, both; *konos*, cone.] Cusp of molar of extinct mammals, believed to have evolved into metacone and paracone.

amphicribal,—amphiphloic.

amphicytes (ām'fisits) *n. plu.* [Gk. *amphi*, both; *kytos*, hollow.] Endothelial cells surrounding, or forming, capsules of cells of a dorsal root ganglion; capsule cells.

amphidelphic (ām'fidēl'fik) *a.* [Gk. *amphi*, both; *delphys*, womb.] Having a paired uterus, as in certain nematodes; didelphic.

amphidetic (ām'fidēt'ik) *a.* [Gk. *amphi*, both; *detos*, bound.] Extending behind and in front of umbo; *appl.* hinge ligaments of some bivalve shells; *cf.* opisthodontic.

amphidial (āmfid'iāl) *a.* [Gk. *amphi*, both.] *Pert.* amphids; *appl.* a unicellular gland in nematodes.

amphidiploid (ām'fidip'loid) *a.* [Gk. *amphi*, both; *diploos*, double.] Double diploid; allotetraploid. *n.* A hybrid having diploid genomes of both parental species.

amphidisc (ām'fidisk) *n.* [Gk. *amphi*, both; *diskos*, round plate.] A grapel-shaped spicule of some freshwater sponges.

amphids (ām'fīdz) *n. plu.* [Gk. *amphi*, both.] Two anterior lateral chemoreceptive organs in nematodes.

amphigastria (ām'fīgās'trīā) *n. plu.* [Gk. *amphi*, both; *gaster*, stomach.] Rudimentary leaves, or scales, on under surface of foliose liverworts.

amphigenesis (ām'fijēn'ēsīs) *n.* [Gk. *amphi*, both; *genesis*, descent.] Amphigony; sexual reproduction.

amphigenous (ām'fij'ēnūs) *a.* [Gk. *amphi*, both; *-genes*, producing.] Borne or growing on both sides of a structure, as of a leaf; perigenous, *q.v.*

amphigonic (ām'fīgōn'īk) *a.* [Gk. *amphi*, both; *gonē*, seed.] Producing male and female gametes in separate gones in different individuals; bisexual; *pert.* amphigony; *cf.* digonic, syngonic.

amphigony (ām'fīg'ōnī) *n.* [Gk. *amphi*, both; *gonos*, offspring.] Reproduction involving two individuals; amphigenesis.

amphigynous (ām'fij'īnūs) *a.* [Gk. *amphi*, both; *gyne*, female.] *Appl.* antheridium surrounding the base of the oogonium, as in some Pterisporales.

amphikaryon (ām'fikār'īōn) *n.* [Gk. *amphi*, both; *karyon*, nut.] An amphinucleus or nucleus with large karyosome (in reference to supposed encapsulating of kinetic nucleus by trophic nucleus); nucleus with two haploid sets of chromosomes.

amphimict (ām'fimikt) *n.* [Gk. *amphi*, both; *miktos*, mixed.] A biotype resulting from sexual reproduction; an obligate sexual organism.

amphimixis (ām'fimīk'sīs) *n.* [Gk. *amphi*, both; *mixis*, mingling.] The mingling of paternal and maternal characteristics by union of male and female pronuclei in fertilisation. *Opp.* apomixis.

amphinucleolus (ām'finūklē'ölūs) *n.* [Gk. *amphi*, both; *L. nucleolus*, a small kernel.] A double nucleolus comprising basiphil and oxyphil components.

amphinucleus,—amphikaryon, *q.v.*

amphiodont (ām'fiōdōnt) *a.* [Gk. *amphi*, both; *odontos*, tooth.] *Appl.* an intermediate state of mandible development in stag-beetles.

amphiont (ām'fiōnt) *n.* [Gk. *amphi*, both; *on*, being.] Zygote or sporont formed by coming together of two individuals.

amphiphloic,—periphloic, *q.v.*

amphiplatyan (ām'fīplātīān) *a.* [Gk. *amphi*, both; *platys*, flat.] Flat on both ends; *appl.* vertebral centra.

amphipneustic (ām'finū'stik, -pn-) *a.* [Gk. *amphi*, both; *pnein*, to breathe.] Having both gills and lungs throughout life-history; with only anterior and posterior pairs of spiracles functioning, as in most dipterous larvae; amphipneustous.

amphipodous (ām'fip'ōdūs) *a.* [Gk. *amphi*, both; *pous*, foot.] Having feet for walking and feet for swimming.

amphipyrenin (ām'fīpīrē'nīn) *n.* [Gk. *amphi*, both; *pyren*, fruit-stone.] Substance of which nuclear membrane is composed.

amphirhinal (ām'firī'nāl) *a.* [Gk. *amphi*, both; *rhis*, nose.] Having, or *pert.*, two nostrils.

amphisarca (ām'fisār'kā) *n.* [Gk. *amphi*, both; *sarx*, flesh.] A superior indehiscent many-seeded fruit with pulpy interior and woody exterior.

amphispermous (ām'fispēr'mūs) *a.* [Gk. *amphi*, both; *sperma*, seed.] Having seed closely surrounded by pericarp.

amphisporangiate (ām'fispōrān'jiāt) *a.* [Gk. *amphi*, both; *sporos*, seed; *angeion*, vessel.] Having sporophylls bearing both megasporangia and microsporangia; hermaphrodite, *appl.* flowers.

amphisporē (ām'fispōr) *n.* [Gk. *amphi*, both; *sporos*, seed.] A reproductive spore which functions as a resting spore in certain algae; mesospore; a uredospore modified to withstand dry environment.

amphisternous (ām'fīstēr'nūs) *a.* [Gk. *amphi*, both; *sternon*, breast-bone.] *Appl.* type of sternum structure in Atelostomata.

amphistomatic (ām'fīstōmāt'ik) *a.* [Gk. *amphi*, both; *stoma*, mouth.] Having stomata on both surfaces, *appl.* certain types of leaves.

amphistomous (ām'fīs'tōmūs) *a.* [Gk. *amphi*, both; *stoma*, mouth.] Having a sucker at each end of body, as certain worms.

amphistylic (ām'fīstīl'ik) *a.* [Gk. *amphi*, both; *stylos*, pillar.] Having jaw arch connected with skull by both hyoid and quadrate, or by both hyoid and palato-quadrate; exhibiting condition of amphistily.

amphitene (ām'fītēn) *a.* [Gk. *amphi*, both; *tainia*, band.] Stage of meiosis in which spireme threads are uniting in pairs; zygotene.

amphithecium (ām'fīthē'siūm) *n.* [Gk. *amphi*, both; *thekion*, box.] Peripheral layer of cells in sporangia of liverworts and mosses.

amphitoky (ām'fīt'ōki) *n.* [Gk. *amphi*, both; *tokos*, birth.] Parthenogenetic reproduction of both males and females.

amphitriaene (ām'fītrī'ēn) *n.* [Gk. *amphi*, both; *tridens*, trident.] A double trident-shaped spicule.

amphitrichous (ām'fīt'rīkūs) *a.* [Gk. *amphi*, both; *thrix*, hair.] With a flagellum at each pole; *appl.* bacteria; amphitrichate, amphitrichic.

amphitrocha (ām'fīt'rōkā) *n.* [Gk. *amphi*, both; *trochos*, wheel.] A free-swimming annelid larva with two rings of cilia.

amphitropous (ām'fīt'rōpūs) *a.* [Gk. *amphi*, both; *trope*, turning.] Having the ovule inverted, with hilum in middle of one side.

amphivasal (ām'fīvā'sāl, -zāl) *a.* [Gk. *amphi*, both; *L. vas*, vessel.] With primary xylem surrounding, or on two sides of centric phloem, *appl.* vascular bundle; amphixylic, perixylic. *Opp.* amphicribal, amphiphloic, periphloic.

amphixylic,—perixylic, *q.v.*

amphocyte (ām'fōsīt) *n.* [Gk. *ampho*, both of two; *kytos*, hollow.] An amphophil cell.

amphogenic (ām'fōjēn'ik) *a.* [Gk. *ampho*, both of two; *-genes*, producing.] Producing offspring consisting of both males and females.

amphophil (ām'fōfil) *a.* [Gk. *ampho*, both of two; *philein*, to love.] *Appl.* cells staining with basic and acid dyes; amphochromatophil; neutrophil. *n.* Amphocyte.

amphoteric (ām'fōtēr'ik) *a.* [Gk. *amphotere*, in both ways.] With opposite characters; acidic and also basic.

amplectant (āmplēk'tānt) *a.* [L. *amplecti*, to embrace.] Clasping or winding tightly round some support, as tendrils.

amplexicaul (āmplēk'sīkōl) *a.* [L. *amplecti*, to embrace; *caulis*, stem.] Clasping or surrounding the stem, as base of leaf.

amplexus (āmplēk'sūs) *n.* [L. *amplexus*, embrace.] Sexual embrace, in batrachians.

ampliate (ām'pliāt) *a.* [L. *ampliatius*, made wider.] Having outer edge of wing prominent, as in certain insects.

amplification (ām'plifikā'shūn) *n.* [L. *amplificatio*, enlargement.] Changes towards increased structural or functional complexity in ontogeny or phylogeny. *Opp.* reduction.

ampulla (āmpool'ā, -pūl'-) *n.* [L. *ampulla*, flask.] A membranous vesicle; dilatation of a lactiferous tubule beneath areola; dilated portion at one end of each semi-circular canal of ear; dilatation of united common bile-duct and pancreatic duct; part of oviduct between infundibulum and isthmus; dilated portion of vas deferens at fundus of urinary bladder; terminal dilatation of rectum; pit in skeleton of Hydrocorallina, for medusa; internal reservoir on ring canal of water-vascular system in echinoderms; terminal vesicle of sensory canals of elasmobranchs; submerged bladder of Utricularia.

ampullaceal (ämpülä'seäl) *a.* [L. *ampulla*, flask.] Flask-shaped, *appl.* arachnid spinning glands which furnish silk for foundations, lines, and radii; *appl.* sensillae.

ampullaceous (ämpülä'seüs) *a.* [L. *ampulla*, flask.] Flask-shaped; *appl.* sensillae.

ampullary (ämpool'äri, -pül'-) *a.* [L. *ampulla*, flask.] *Pert.* or resembling an ampulla.

ampullula (ämpool'ülä, -pül'-) *n.* [*Dim.* of L. *ampulla*, flask] A small ampulla, as of some lymphatic vessels.

ampyx (äm'piks) *n.* [Gk. *ampyx*, fillet.] A transverse bar connecting the rostralia of Palaeospondylus.

amyelinic (äm'iēlin'ik) *a.* [Gk. *a*, without; *myelos*, marrow.] Without myelin; *appl.* non-medullated or grey nerve-fibres; amyelinate.

amygdala (ämig'dälä) *n.* [L. from Gk. *amygdale*, almond.] Almond; one of palatal tonsils; rounded lobe at side of vallecule of cerebellum.

amygdalin (ämig'dälin) *n.* [Gk. *amygdale*, almond.] A compound occurring in fruit kernels of bitter almonds and other Rosaceae, and producing hydrocyanic acid, glucose and benzaldehyde upon hydrolysis; $C_{20}H_{27}O_{11}N$.

amylase (äm'iläs) *n.* [L. *amylum*, starch.] An enzyme which converts (α) starch into dextrin, or (β) dextrin into maltose; amylolytic enzyme.

amyliferous (äm'ilif'erüs) *a.* [L. *amylum*, starch; *ferre*, to carry.] Containing or producing starch.

amylolastic,—amylolytic, *q.v.*

amylolid (äm'ilöid) *a.* [Gk. *amylon*, starch; *eidos*, form.] Starch-like. *n.* Starch-like substance.

amylolid bodies,—concretions found in alveoli of adult prostate gland.

amylolytic (äm'ilölit'ik) *a.* [Gk. *amylon*, starch; *lysis*, loosing.] Starch-digesting, *appl.* enzymes.

amylome (äm'ilöm) *n.* [Gk. *amylon*, starch.] Starch-containing wood-

parenchyma; layer of starch-containing cells between central cylinder and leptoids of certain moss rhizomes.

amyloplast (äm'ilöp'läst') *n.* [Gk. *amylon*, starch; *plastos*, formed.] A leucoplast or colourless starch-forming granule in plants; amyloplastid.

amylopsin (äm'ilöp'sin) *n.* [Gk. *amylon*, starch; *opson*, seasoning.] Pancreatic amylase.

amylose (äm'ilös) *n.* [L. *amylum*, starch.] The substance forming starch.

amylostolith (äm'ilöstät'ölith) *n.* [Gk. *amylon*, starch; *staios*, stationary; *lithos*, stone.] A starch grain which moves under the influence of gravity in a statocyte; *cf.* statolith.

amylum (äm'ilüm) *n.* [L. *amylum*, starch.] Vegetable starch; $(C_6H_{10}O_5)_x$.

anabiosis (än'äbiō'sis) *n.* [Gk. *ana*, up; *bios*, life.] Resuscitation after apparent death; power of revivification, as seen in certain Tardigrada.

anabolism (änäb'ölizm) *n.* [Gk. *ana*, up; *bole*, throw.] The constructive chemical processes in living organisms, *opp.* katabolism.

anabolite (änäb'ölit) *n.* [Gk. *ana*, up; *bole*, throw.] A substance participating in anabolism.

anacanthous (än'äkän'thūs) *a.* [Gk. *an*, not; *akantha*, prickle.] Without spines or thorns.

anacrogynous (änäkröj'inüs) *a.* [Gk. *an*, not; *akros*, apex; *gyne*, female.] *Appl.* certain liverworts in which female reproductive bodies do not arise at or near apex of shoot. *Opp.* acrogynous.

anacromyoidian (änäk'römioi'diän) *a.* [Gk. *ana*, up; *akros*, apex; *mys*, muscle; *eidos*, form.] With syringeal muscles attached at dorsal ends of bronchial semi-rings.

anadromous (änäd'römüs) *a.* [Gk. *ana*, up; *dramein*, to run.] *Appl.* fishes which migrate from salt to fresh water annually. *Opp.* catadromous.

anaerobe (ānā'ērōb) *n.* [Gk. *an*, without; *aer*, air; *bios*, life.] An anaerobic organism, capable of living in absence of free oxygen.

Opp. aerobe. *a.* Anaerobic.

anaerobiosis (ānā'ērōbiō'sis) *n.* [Gk. *an*, without; *aer*, air; *biosis*, manner of life.] Existence in absence of free oxygen.

anaesthesia (ānēsthē'siā) *n.* [Gk. *an*, without; *aisthesis*, feeling.] Local or general insensibility.

anagenesis (ān'ājēn'ēsīs) *n.* [Gk. *ana*, again; *genesis*, origin.] Regeneration of tissues; progressive evolution.

anahaemin (ān'āilēm'min) *n.* [Gk. *ana*, again; *haima*, blood.] A proteid substance of liver, acting in regeneration of erythrocytes; haemopoietic principle.

anakinetic (ān'ākinēt'ik) *a.* [Gk. *ana*, up; *kinein*, to move.] *Appl.* process which restores energy; *cf.* katakinetic.

anakinetomeres (ān'ākinē'tōmērz) *n. plu.* [Gk. *ana*, up; *kinein*, to move; *meros*, part.] Energy-rich reactive atoms or molecules.

anal (ā'nāl) *a.* [L. *anus*, anus.] *Pert.*, or situated at or near, the anus; *appl.* posterior median ventral fin of fishes, margin and vein of insect wing, posterior ventral scute of reptiles, etc.

analogues (ān'ālōgz) *n. plu.* [Gk. *analogia*, proportion.] Organs of different plants or animals with like function but of unlike origin.

analogy (ānāl'ōji) *n.* [G. *analogia*, proportion.] Resemblance in function though not in structure or development.

anamestic (ānāmēs'tik) *a.* [Gk. *ana*, up; *mestos*, filled.] *Appl.* small variable bones filling spaces between larger bones of more fixed position, as in fish skulls.

anamniote (ānām'niōt) *n.* [Gk. *a*, not; *amnion*, foetal membrane.] An animal which has no amnion in embryonic life.

anamorpha (ānāmôr'fā) *n. plu.* [Gk. *ana*, backwards; *morphe*, form.]

Larvae hatched with incomplete number of segments; *cf.* epimorpha.

anamorphosis (ān'āmôr'fōsis) *n.* [Gk. *ana*, throughout; *morphosis*, shaping.] Evolution from one type to another through a series of gradual changes; excessive or abnormal formation of a plant organ.

anandrous (ānān'drūs) *a.* [Gk. *a*, without; *aner*, male.] Without stamens.

anangian (ānān'jiān) *a.* [Gk. *a*, without; *angeion*, vessel.] *Appl.* worms without a vascular system.

anantherous (ān'ānthērūs) *a.* [Gk. *a*, without; *antheros*, flowering.] Without anthers.

ananthous (ānān'thūs) *a.* [Gk. *a*, without; *anthos*, flower.] Not flowering; without inflorescence.

anaphase (ān'āfāz) *n.* [Gk. *ana*, up; *phasis*, appearance.] A stage in mitosis during divergence of daughter chromosomes; the stages of mitosis up to division of chromatin into chromosomes; *cf.* kataphase.

anaphylaxis (ān'āfilāk'sis) *n.* [Gk. *ana*, up; *phylax*, guard.] Condition of being hypersensitive to a serum or foreign protein, caused by first or sensitising dose.

anaphysis (ānāf'isīs) *n.* [Gk. *ana*, up; *phyein*, to grow.] An out-growth; a sterigma-like filament in apothecium of certain lichens.

anaphyte (ān'āfit) *n.* [Gk. *ana*, up; *phyton*, plant.] Transverse segment of a shoot; an internode.

anaplasia (ānāplā'ziā) *n.* [Gk. *ana*, again; *plassein*, to form.] Undifferentiation; reversion to a less differentiated structure.

anoplast (ān'āpläst) *n.* [Gk. *ana*, up; *plastos*, formed.] A leucoplastid; anoplastid.

anapleurite (ān'āploor'it) *a.* [Gk. *ana*, up; *pleura*, side.] Upper thoracic pleurite, as in certain Thysanura.

anapophysis (än'äpöf'isis) *n.* [Gk. *ana*, up; *apo*, from; *physis*, origin.] A small dorsal projection rising near transverse process in lumbar vertebrae.

anapsid (änäp'sid) *a.* [Gk. *ana*, up; *apsis*, arch.] With skull wholly imperforate or completely roofed over; stegocrotaphic.

anaptychus (änäp'tiküs) *n.* [Gk. *ana*, throughout; *ptyche*, plate.] Aptychus or operculum consisting of a single plate, as in certain ammonites; *cf.* synaptychus.

anarthrous (änär'thrüs) *a.* [Gk. *a*, without; *arthron*, joint.] Having no distinct joints.

anaschistic (än'äskis'tik) *a.* [Gk. *ana*, up to; *schistos*, split.] *Appl.* type of tetrads which divide twice longitudinally in meiosis; *cf.* diaschistic.

anastates (än'ästäts) *n. plu.* [Gk. *ana*, up to; *statos*, standing.] Various materials that arise owing to metabolism in a cell, in formation of complex from simple substances. *Opp.* katabstates.

anastomosis (änäs'tömō'sis) *n.* [Gk. *ana*, up to; *stoma*, mouth.] Union of ramifications of leaf-veins; union of blood-vessels arising from a common trunk; union of nerves; fine threads joining chromonemata in resting nucleus; formation of a network or anastomotic meshwork.

anastral (änäs'träl) *a.* [Gk. *an*, not; *aster*, star.] *Appl.* type of mitosis without aster-formation.

anatomy (änät'ömi) *n.* [Gk. *ana*, up; *tome*, cutting.] The science which treats of the structure of plants and of animals, as determined by dissection; usually, human anatomy.

anatoxin,—toxoid, *g.v.*

anatrepis (änätrep'sis) *n.* [Gk. *anatrepein*, to turn over.] Stage of increasing movement in blastokinesis.

anatriaene (än'ättri'ēn) *n.* [Gk. *ana*, up; *triaina*, trident.] Triaene with backwardly directed branches.

anotropous (änät'röpüs) *a.* [Gk. *anatrope*, overturning.] Inverted,

appl. ovules with hilum and micropyle close together and chalaza at other end; anatropal.

anaxial (änäk'siäl) *a.* [Gk. *a*, without; *axis*, axle.] Having no distinct axis; asymmetrical.

anaxon (änäk'sön) *n.* [Gk. *a*, without; *axon*, axis.] A nerve cell having no evident axon; anaxone.

ancestrula (änsēs'troolä) *n.* [L. *antecedere*, to go before.] First zoecium of polyzoan colony.

anchor (äng'kör) *n.* [L. *ancora*, anchor.] Anchor-shaped spicule found in skin of Holothuria.

anchylosis (äng'klō'sis) *n.* [Gk. *angchein*, to press tight.] Union of two or more bones or hard parts to form one part, *e.g.* of bone to bone, or tooth to bone; ankylosis.

ancipital (änsip'itäl) *a.* [L. *anceps*, double.] Flattened and having two edges.

ancistroid,—ankistroid.

anconeal (ängkō'nēäl) *a.* [Gk. *angkon*, elbow.] *Pert.* the elbow.

anconeus (ängkō'nēüs) *n.* [Gk. *angkon*, elbow.] Small extensor muscle situated over elbow; anconaeus.

andrase (än'dräs) *n.* [Gk. *aner*, male.] A male-determining factor in form of an enzyme or hormone.

andric (än'drik) *a.* [Gk. *andrikos*, masculine.] Male, *opp.* gynec.

andrin (än'drin) *n.* [Gk. *aner*, male.] The testicular androgens.

androclinium,—clinandrium.

androconia (än'drökō'niä) *n. plu.* [Gk. *aner*, male; *konía*, dust.] Modified wing-scales producing a sexually attractive scent in certain male butterflies.

androcyte (än'drösit) *n.* [Gk. *aner*, male; *kytos*, hollow.] A cell arising by growth from an androgonium and giving rise to antherozoid.

androdioecious (än'drōdiē'siüs) *a.* [Gk. *aner*, male; *dis*, two; *oikos*, house.] Having male and hermaphrodite flowers on different plants.

androecium (ändrē'stūm) *n.* [Gk. *aner*, male; *oikos*, house.] Male reproductive organs of a plant; stamens taken collectively.

androgametangium (än'drögām'-ētän'jūm) *n.* [Gk. *aner*, male; *gametes*, spouse; *anggeion*, vessel.] A structure producing male sexual cells; antheridium.

androgen (än'dröjēn) *n.* [Gk. *aner*, male; *genos*, descent.] A male hormone; a masculinising substance.

androgenesis (än'dröjēn'ēsīs) *n.* [Gk. *aner*, male; *genesis*, descent.] Development of egg furnished with paternal chromosomes only; male parthenogenesis.

androgenetic (än'dröjēnēt'ik) *a.* [Gk. *aner*, male; *genesis*, descent.] Having paternal chromosomes only.

androgenic (än'dröjēn'ik) *a.* [Gk. *aner*, male; *gennaein*, to produce.] Stimulating male characters; masculinising; *appl.* hormones; *appl.* tissue capable of elaborating an androgenic hormone; androgenous, *q.v.*

androgenous (ändröj'ēnūs) *a.* [Gk. *aner*, male; *genos*, descent.] Producing only male offspring.

androgonidia (än'drögōnid'ia) *n. plu.* [Gk. *aner*, male; *gonos*, offspring; *idion*, *dim.*] Male sexual elements formed after repeated divisions of parthenogonidia of Volvox.

androgonium (än'drögō'njūm) *n.* [Gk. *aner*, male; *gonos*, offspring.] An early stage in formation of sperm-cells of plants.

androgynal (ändröj'ināl) *a.* [Gk. *aner*, male; *gyne*, female.] Hermaphrodite; bearing both staminate and pistillate flowers in the same inflorescence; with antheridium and oogonium on the same hypha; androgynous.

androgynary (ändröj'inārī) *a.* [Gk. *aner*, male; *gyne*, female.] Having flowers with stamens and pistils developed into petals.

androgyne (än'dröjīn, än'dröjīn'ē) *a., n.* Hermaphrodite.

androgynism (ändröj'inīzm) *n.* [Gk.

aner, male; *gyne*, female.] The condition of bearing both stamens and pistils; hermaphroditism.

andromerogony (än'drömērög'ōni) *n.* [Gk. *aner*, male; *meros*, part; *gone*, generation.] The development of an egg fragment with only paternal chromosomes.

andromonoecious (än'drömōnē'siūs) *a.* [Gk. *aner*, male; *monos*, alone; *oikos*, house.] Having male and hermaphrodite flowers on the same plant.

andropetalous (än'dröpēt'älūs) *a.* [Gk. *aner*, male; *petalon*, leaf.] Having petaloid stamens.

androphore (än'dröfōr) *n.* [Gk. *aner*, male; *phora*, carrying.] Stalk supporting androecium or stamens; stalk carrying male gonophores in Siphonophora.

androphyll (än'dröfil) *n.* [Gk. *aner*, male; *phyllon*, leaf.] The leaf bearing microspores; the microsporophyll.

androsome (än'drösōm) *n.* [Gk. *aner*, male; *soma*, body.] A male-limited chromosome.

androsporangium (än'dröspōrān'-jūm) *n.* [Gk. *aner*, male; *sporos*, seed; *anggeion*, vessel.] A sporangium containing androspores.

androspore (än'dröspōr) *n.* [Gk. *aner*, male; *sporos*, seed.] An asexual zoospore which gives rise to a male dwarf plant; male spore; microspore; pollen grain.

androsterone (än'dröstē'rōn) *n.* [Gk. *aner*, male; *stear*, *suct.*] Male hormone, present in adrenal cortex, obtained from urine; $C_{19}H_{30}O_2$.

androtip (än'drötīp) *n.* [Gk. *aner*, male; *typos*, pattern.] Type specimen of the male of a species.

anebous (än'ēbūs, anē'būs) *a.* [Gk. *anebos*, before manhood.] Immature; before puberty; prepubertal.

anelectrotonus (än'ēlēktrotō'nūs, än'ēlēktrotō'ōnūs) *n.* [Gk. *ana*, up; *elektron*, amber; *tonos*, tension.] Decrease in irritability of a nerve under influence of a non-polarising electric current.

anellus (änēl'ūs) *n.* [*L. anellus*, little ring.] A small ring-shaped or triangular plate supported by valves and vinculum, in *Lepidoptera*.

anemochorous (änēmökō'rūs) *a.* [Gk. *anemos*, wind; *chorein*, to spread.] Dispersed by wind; with seeds so dispersed; anemochoric.

anemophilous (änēmōf'ilūs) *a.* [Gk. *anemos*, wind; *philein*, to love.] Wind-pollinated.

anemophily (änēmōf'ili) *n.* [Gk. *anemos*, wind; *philein*, to love.] Plant-fertilisation by agency of wind.

anemoplankton (änēm'ōplāngk'tōn) *n.* [Gk. *anemos*, wind; *planktos*, wandering.] Wind-borne organisms and living particles; aeroplankton, *q.v.*

anemosporic (änēm'ōspōr'ik) *a.* [Gk. *anemos*, wind; *sporos*, seed.] Having spores or seeds disseminated by air currents.

anemotaxis (änēm'ōtāk'sis) *n.* [Gk. *anemos*, wind; *taxis*, arrangement.] Directed movement in response to air currents.

anemotropism (änēmōt'rōpizm) *n.* [Gk. *anemos*, wind; *trope*, turn.] Orientation of body, or plant curvature, in response to air currents.

anencephaly (änēnkēf'ālī, -sēf'-) *n.* [Gk. *an*, not; *engkephalon*, brain.] Condition of having no brain.

anenterous (änēn'tērūs) *a.* [Gk. *an*, without; *enteron*, gut.] Having no alimentary tract; anenteric.

aner (än'er, änār) *n.* [Gk. *aner*, male.] The male of insects, especially of ants.

anestrum,—anoestrus, *q.v.*

aneucentric (änūsēn'trik) *a.* [Gk. *a*, without; *eu*, well; *kentron*, centre.] Acentric and dicentric, resulting from translocation involving centromere of a chromosome.

aneuploid (än'ūploid) *a.* [Gk. *a*, without; *eu*, well; *aploos*, onefold.] Having fewer or more chromosomes than an exact multiple of the haploid number, *opp.* euploid.

aneurine (änū'rīn) *n.* [Gk. *a*,

without; *neuron*, nerve.] Vitamin B₁, the anti-beri-beri factor in yeast, legumes, cereals, and other foods; aneurin; thiamine (U.S.A.); C₁₂H₁₈ON₄SCl₂.

aneuronic (änūrōn'ik) *a.* [Gk. *a*, without; *neuron*, nerve.] Without innervation; *appl.* chromatophores controlled by hormones.

anfractuose (änfrāk'tūōs) *a.* [*L. anfractus*, bending.] Wavy, sinuous.

angienchyma (än'jiēng'kīmā) *n.* [Gk. *anggeion*, vessel; *engchein*, to pour.] Vascular tissue.

angioblast (än'jiōblāst) *n.* [Gk. *anggeion*, vessel; *blastos*, bud.] One of cells from which lining of blood-vessels is derived; vasoformative cell.

angiocarpic (än'jiōkār'pik) *a.* [Gk. *anggeion*, vessel; *karpōs*, fruit.] Having fruit enclosed; angiocarpous; *appl.* fungi. *Opp.* gymnocarpic.

angiology (än'jiōl'ōji) *n.* [Gk. *anggeion*, vessel; *logos*, discourse.] Anatomy of blood and lymph vascular systems.

angiospermous (änjiōspēr'mūs) *a.* [Gk. *anggeion*, vessel; *sperma*, seed.] Having seeds in a closed case, the ovary.

angiosporous (änjiōs'pōrūs) *a.* [Gk. *anggeion*, vessel; *sporos*, seed.] Having spores contained in a theca or spore capsule.

angiostomatous (än'jiōstōm'ātūs) *a.* [Gk. *anggeion*, vessel; *stoma*, mouth.] Narrow-mouthed, *appl.* an order of molluscs, and to a sub-order of snakes, with non-distensible mouth.

angiotonin (änjiōt'ōnīn) *n.* [Gk. *anggeion*, vessel; *tonos*, tension.] Substance in circulating blood, formed by reaction between hypertensinogen elaborated in the liver, and renin, causing constriction of arterioles; hypertensin.

ångström (ōng'strēm) *n.* [*A. J. Ångström*, Swedish physicist.] One ten millionth part of a millimetre, symbol Å.

angular (äng'gūlār) *n.* [L. *angulus*, corner.] A membrane bone of lower jaw in most vertebrates. *a.* Having, or *pert.*, an angle; *appl.* leaf originating at forking of stem, as in many ferns; *appl.* collenchyma with cell-walls thickened in the angles of the cells; *appl.* line of junction, or collarette, between pupillary and ciliary zones of iris.

angulosplenic (äng'gūlōsplē'nīāl) *n.* [L. *angulus*, corner; *splenum*, patch.] Bone forming most of lower and inner part of mandible in Amphibia.

angulus (äng'gūlūs) *n.* [L. *angulus*, angle.] An angle, as that formed by junction of manubrium and body of sternum (angle of Louis).

angustifoliate (änggūs'tifō'lliāt) *a.* [L. *angustus*, narrow; *folium*, leaf.] With narrow leaves.

angustirostrate (änggūs'tirōs'trāt) *a.* [L. *angustus*, narrow; *rostrum*, beak.] With narrow beak or snout.

anholocyclic (än'hōlōsk'lik) *a.* [Gk. *an*, not; *holos*, whole; *kyklos*, circle.] *Pert.* alternation of generations with suppression of sexual part of cycle; permanently parthenogenetic.

anidian (än'id'īän) *a.* [Gk. *an*, not; *eidōs*, form.] Formless; *appl.* blastoderm without apparent embryonic axis.

animal pole,—the upper, more rapidly segmenting, portion of a telolecithal egg. *Opp.* vegetal pole.

animal starch,—glycogen.

anion (än'īōn, än'tīōn) *n.* [Gk. *ana*, up; *ienai*, to go.] A negatively-charged particle or ion which moves up towards the anode or positive pole.

anisocarpous (än'isōkār'pūs) *a.* [Gk. *anisos*, unequal; *karpōs*, fruit.] Having number of carpels less than that of other floral whorls.

anisocercal (än'isōsēr'kāl) *a.* [Gk. *anisos*, unequal; *kērkos*, tail.] With lobes of tail-fin unequal.

anisochela (än'isōkē'lā) *n.* [Gk. *anisos*, unequal; *chele*, claw.] A chela with the two parts unequally developed.

anisodactylous (än'isōdāk'tilūs) *a.* [Gk. *anisos*, unequal; *daktylos*, finger.] Having unequal toes, three toes forward, one backward.

anisodont (än'isōdōnt) *a.* [Gk. *anisos*, unequal; *odous*, tooth.] Having differentiated teeth; heterodont. *Opp.* isodont.

anisogamete (än'isōgāmēt) *n.* [Gk. *anisos*, unequal; *gametes*, spouse.] One of two conjugating gametes differing in form or size.

anisogametism,—the production of anisogametes, as of macrogametes and microgametes; anisogamety.

anisogamous (än'isōg'āmūs) *a.* [Gk. *anisos*, unequal; *gamos*, marriage.] *Appl.* differentiated gametes or conjugating bodies.

anisogamy (än'isōg'āmi) *n.* [Gk. *anisos*, unequal; *gametes*, spouse.] Conjugation between sharply differentiated gametes; heterogamy.

anisognathous (än'isōg'nāthūs) *a.* [Gk. *anisos*, unequal; *gnathos*, jaw.] With jaws of unequal width; having teeth in upper and lower jaws unlike.

anisomeres (än'isōmērēz) *n. plu.* [Gk. *anisos*, unequal; *meros*, part.] Homologous parts or polyisomeres when differing amongst themselves; *cf.* polyanisomere.

anisomerogamy,—anisogamy.

anisomerous (än'isōm'ērūs) *a.* [Gk. *anisos*, unequal; *meros*, part.] Having unequal numbers of parts in floral whorls.

anisomorphic (än'isōmôr'fik) *a.* [Gk. *anisos*, unequal; *morphe*, form.] Differing in shape, size, or structure.

anisophylly (än'isōfil'i) *n.* [Gk. *anisos*, unequal; *phyllon*, leaf.] Condition of having leaves of two or more sizes or shapes, as in some conifers and aquatic plants.

anisopleural (än'isōplo'rāl) *a.* [Gk. *anisos*, unequal; *pleura*, side.] Asymmetrical bilaterally.

anisoploid (än'isöploid) *a.* [Gk. *anisos*, unequal; *aploos*, onefold; *eidos*, form.] With an odd number of chromosome sets in somatic cells. *n.* An anisoploid individual.

anisopogonous (änisöpög'onūs) *a.* [Gk. *anisos*, unequal; *pogon*, beard.] Unequally webbed, with reference to feathers.

anisopterus (änisöp'tērūs) *a.* [Gk. *anisos*, unequal; *pteron*, wing.] Unequally winged; *appl.* seeds.

anisospore (änisösöpör') *n.* [Gk. *anisos*, unequal; *sporos*, seed.] A dimorphic spore, the sexes differing in size.

anisostemonous (änisöstēm'onūs) *a.* [Gk. *anisos*, unequal; *stemon*, spun thread.] Having the number of stamens unequal to the number of parts in other floral whorls; having stamens of unequal size.

anisotropic (änisötrop'ik) *a.* [Gk. *anisos*, unequal; *trope*, turn.] *Appl.* eggs with predetermined axis or axes; exhibiting anisotropy; doubly refracting, *appl.* dark bands of voluntary muscle fibre. *Opp.* isotropic.

ankistroid (äng'kistroid) *a.* [Gk. *agkistron*, fish-hook; *eidos*, form.] Like a barb; barbed.

ankylosis,—*an*chylosis, *q.v.*

ankyroid (äng'kiroid) *a.* [Gk. *agkyra*, hook; *eidos*, form.] Hook-shaped.

anlage (än'lägē) *n.* [Ger. *Anlage*, predisposition.] The first structure or cell group indicating development of a part or organ; inception, primordium, ébauche.

annectent (änëk'tënt) *a.* [L. *annectere*, to bind together.] Linking, *appl.* intermediate species or genera.

annelid (än'ëlid) *a.* [L. *annulus*, ring; Gk. *eidos*, form.] Constructed of ring-like segments, as ringed worms; *pert.* Annelida.

annotinous (ännö'tinūs) *a.* [L. *annus*, year.] A year old; *appl.* growth during the previous year.

annual (än'üäl) *a.* [L. *annus*, year.] *Appl.* structures or features that are marked off or completed yearly; lasting for a year only.

annual ring,—one of the rings, seen in transverse sections of dicotyledons, indicating the secondary growth during a year; growth ring of bivalve shells.

annular (än'ülär) *a.* [L. *annulus*, ring.] Ring-like; *appl.* certain ligaments of wrist and ankle; *appl.* (orbicular) ligament encircling head of radius and attached to radial notch of ulna; *appl.* certain lamina or sternal plates in ants; *appl.* certain vessels in xylem, owing to ring-like thickenings in their interior; *appl.* bands formed on inner surface of cell-wall.

annulate (än'ülät) *a.* [L. *annulus*, ring.] Ring-shaped; composed of ring-like segments; having colour arranged in ring-like bands or annuli.

annulus (än'ülüs) *n.* [L. *annulus*, ring.] Any ring-like structure; special ring in fern sporangium, by action of which sporangium bursts; remains of veil in mushrooms; ring of cells in moss capsule whose rupture causes opening; circular groove for transverse flagellum in Dinoflagellata; ring of annelid; growth ring of fish scale; fourth digit of hand.

anococcygeal (än'nököksij'ëäl) *a.* [L. *anus*, anus; *coccyx*; Gk. *kokkyx*, cuckoo.] *Pert.* region between coccyx and anus; *appl.* body of fibrous and muscular tissue, nerves, etc.

anoestrus (änë'strūs) *n.* [Gk. *an*, not; *oistros*, gad-fly.] The non-breeding period; period of absence of sexual urge; anoestrus; *cf.* dioestrus.

anomaly (änöm'älī) *n.* [Gk. *anomalos*, uneven.] Any departure from type characteristics.

anomophyllous (än'ömöfil'üs) *a.* [Gk. *anomos*, lawless; *phyllon*, leaf.] With irregularly placed leaves.

anorganology (än'örgänöl'öjī) *n.* [Gk. *a*, not; *organon*, instrument; *logos*, discourse.] Study of non-living things; abiology.

anorthogenesis (än'örthöjën'ësis) *n.* [Gk. *an*, not; *orthos*, straight; *genesis*, descent.] Evolution manifesting changes in direction of adaptations, owing to preadaptation; 'zigzag' evolution.

anorthospiral (än'örthöspi'räl) *a.* [Gk. *an*, not; *orthos*, straight; *speira*, coil.] Relationally coiled, spirals not interlocking; paranemic. *Opp.* orthospiral, plectonemic.

anosmatic (änösmät'ik) *a.* [Gk. *a*, without; *osme*, smell.] Having no sense of smell; anosmic.

anosmia (änös'miä) *n.* [Gk. *a*, without; *osme*, smell.] Absence or loss of sense of smell.

anoxybiotic (änök'sibiöt'ik) *a.* [Gk. *a*, not; *oxys*, sharp; *bios*, means of life.] Capable of living in absence of oxygen; anaerobic.

ansa (än'sä) *n.* [L. *ansa*, handle.] Loop, as of certain nerves.

anserine (än'sërin) *n.* [L. *anser*, goose.] A constituent of muscle of fishes, reptiles, and birds; $C_{10}H_{18}O_3N_4$.

ansiform (än'siförm) *a.* [L. *ansa*, handle; *forma*, shape.] Loop-shaped; looped; *appl.* outer cytoplasm in cerebro-spinal ganglia.

antagonist (äntäg'önist) *n.* [Gk. *antagonistes*, adversary.] A muscle acting in opposition to the action produced by a prime mover or agonist; an antihormone, *q.v.*

antambulacral (änt'ämbulä'kräl) *a.* [Gk. *anti*, against; L. *ambulare*, to walk.] Not situated on the ambulacral area; abactinal, *q.v.*

antapex (äntäp'ëks) *n.* [Gk. *anti*, opposite; L. *apex*, tip.] Tip of hypococone in Dinoflagellata.

antapical (äntäp'ikäl) *a.* [Gk. *anti*, opposite; L. *apex*, tip.] At or *pert.* antapex; *pert.* region opposite apex.

antebrachium (än'tëbrä'kiüm) *n.* [L. *ante*, before; *brachium*, arm.] The fore-arm, or corresponding portion of a fore-limb.

anteclypeus (än'tëklip'ëüs) *n.* [L. *ante*, before; *clypeus*, shield.] Anterior portion of clypeus when

differentiated by suture; *cf.* post-clypeus.

antecosta (äntëkös'tä) *n.* [L. *ante*, before; *costa*, rib.] Internal ridge of tergum, for attachment of intersegmental muscles in insects, extended to phragma in alar segments.

antecubital (än'tëkü'bital) *a.* [L. *ante*, before; *cubitus*, elbow.] Anterior to the elbow.

antedorsal (än'tëdör'säl) *a.* [L. *ante*, before; *dorsum*, back.] Situated in front of dorsal fin in fishes.

antefrons (än'tëfrönz) *n.* [L. *ante*, before; *frons*, forehead.] The portion of frons anterior to antennary base line in certain insects.

antefurca (än'tëfür'kä) *n.* [L. *ante*, in front; *furca*, fork.] Forked process or sternal apodeme of anterior thoracic segment in insects.

antelabrum (äntëlä'brüm) *n.* [L. *ante*, before; *labrum*, lip.] The anterior portion of insect labrum when differentiated.

antemarginal (än'tëmär'jinal) *a.* [L. *ante*, before; *margo*, edge.] *Appl.* sori of ferns when they lie within margin of frond.

antenna (äntën'ä) *n.* [L. *antenna*, sail-yard.] A jointed feeler on head of various Arthropoda.

antennary (äntën'är) *a.* [L. *antenna*, sail-yard.] Like, or *pert.*, or situated near an antenna; antennal.

antennifer (äntën'ifër) *n.* [L. *antenna*, sail-yard; *ferre*, to carry.] Socket of antenna in arthropods; projection on rim of antennal socket, acting as a pivot, in myriopods.

antennule (äntën'ül) *n.* [L. *dim.* from *antenna*.] A small antenna or feeler, specifically the first pair of antennae in Crustacea.

anteponition (än'tëpözish'ün) *n.* [L. *ante*, before; *ponere*, to place.] Superposition of whorls in a flower typically alternating.

anterior (äntë'rör) *a.* [L. *anterior*, former.] Nearer head end; ventral in human anatomy; facing outwards from axis; previous.

anterolateral,—ventrolateral.

antesternite (än'těstēr'nīt) *n.* [L. *ante*, before; *sternum*, breast-bone.] Anterior sternal sclerite of insects; basisternum, eusternum.

anthela (änthē'lā) *n.* [Gk. *anthein*, to bloom.] The cymose inflorescence of the rush family.

anthelix,—antihelix.

anther (än'thēr) *n.* [Gk. *antheros*, flowering.] The part of a stamen which produces pollen.

antherid,—antheridium.

antheridia,—*plu.* of antheridium.

antheridial cell,—the larger of two cells derived from a microspore and giving rise to an antheridium, or to a cell representing an antheridium.

antheridiophore (änthērid'īōfōr) *n.* [Gk. *anthos*, flower; *idion*, *dim.*; *pherein*, to bear.] A gametophore bearing antheridia.

antheridium (änthērid'ium) *n.* [Gk. *anthos*, flower; *idion*, *dim.*] An organ or receptacle in which male sexual cells are produced in many cryptogams; male gametangium; cluster of microgametes, as in certain Flagellata.

antherophore (än'thērōfōr) *n.* [Gk. *antheros*, flowering; *pherein*, to bear.] The stalk of a stamen bearing several anthers, in male cone of certain gymnosperms.

antherozoids (än'thērōzō'idz), **antherozoids** (än'thērōzō'oidz) *n. plu.* [Gk. *anthos*, flower; *zoon*, animal; *eidos*, form.] Male sexual cells in antheridia.

anthesis (änthē'sis) *n.* [Gk. *anthos*, flower.] Stage or period at which flower-bud opens; flowering; period of flowering.

anthoblast (än'thōbläst) *n.* [Gk. *anthos*, flower; *blastos*, bud.] In Madreporaria, a young sessile polyp producing anthocyathus.

anthocarpous (än'thōkär'pūs) *a.* [Gk. *anthos*, flower; *karpōs*, fruit.] *Appl.* aggregated fruits, products of fusion of several flowers, as sorosis and syconus.

anthocaulis (än'thōkōl'is) *n.* [Gk. *anthos*, flower; L. *caulis*, stem.]

The pedicle of a late trophozooid stage of madreporic development.

anthochlore (än'thōklōr) *n.* [Gk. *anthos*, flower; *chloros*, yellow.] A yellow pigment dissolved in cell-sap of corolla, as of primrose.

anthocodia (än'thōkō'diā) *n.* [Gk. *anthos*, flower; *kōdeia*, head.] The distal portion of a zooid bearing mouth and tentacles, in Alcyonaria.

anthocyanin (än'thōsī'änin) *n.* [Gk. *anthos*, flower; *kyanos*, dark blue.] One of the blue or violet pigments of flowers, leaves, and stems.

anthocyathus (än'thōsī'äthūs) *n.* [Gk. *anthos*, flower; *kyathos*, cup.] The discoid crown of trophozooid stage in madreporic development.

anthodium (änthō'dium) *n.* [Gk. *anthos*, flower; *eidos*, form.] Capitulum or head of Compositae.

anthogenesis (än'thōjēn'ēsis) *n.* [Gk. *anthos*, flower; *genesis*, descent.] In certain aphids, production of both males and females by asexual forms.

anthophilous (änthōf'ilūs) *a.* [Gk. *anthos*, flower; *philein*, to love.] Attracted by flowers; feeding on flowers.

anthophore (än'thōfōr) *n.* [Gk. *anthos*, flower; *pherein*, to bear.] Elongation of thalamus between calyx and corolla.

anthophyte (än'thōfit) *n.* [Gk. *anthos*, flower; *phyton*, plant.] A flowering plant; phanogam, phanerogam, spermatophyte.

anthostrobilus (än'thōstrōb'ilūs) *n.* [Gk. *anthos*, flower; *strobilos*, fir-cone.] Fructification or flower of certain cycads.

anthotaxis (än'thōtāk'sis) *n.* [Gk. *anthos*, flower; *taxis*, arrangement.] Arrangement of flowers on an axis.

anthoxanthin (än'thōzän'thīn) *n.* [Gk. *anthos*, flower; *xanthos*, yellow.] A yellow pigment of flowers.

anthracobiontic (än'thrākōbiōn'tik) *a.* [Gk. *anthrax*, charcoal; *bionai*, to live.] Growing on burned-over soil or scorched material; *appl.* fungi.

anthropeic (änthröpē'ik) *a.* [Gk. *anthropeios*, by human means.] Due to influence of man.

anthropogenesis (än'thröpöjēn'ésis) *n.* [Gk. *anthropos*, man; *genesis*, descent.] The ontogenesis and phylogenesis of man; descent of man.

anthropogenetic (än'thröpöjēnēt'ik) *a.* [Gk. *anthropos*, man; *genesis*, descent.] *Pert.* anthropogenesis.

anthropogenic (än'thröpöjēn'ik) *a.* [Gk. *anthropos*, man; *gens*, produced.] Produced or caused by man.

anthropoid (än'thröpoid) *a.* [Gk. *anthropos*, man; *eidōs*, form.] Resembling man; *appl.* tailless apes.

anthropology (än'thröpöl'öjī) *n.* [Gk. *anthropos*, man; *logos*, discourse.] The natural history of man.

anthropometry (än'thröpöm'ëtrī) *n.* [Gk. *anthropos*, man; *metron*, measure.] That part of biology dealing with proportional measurements of parts of the human body.

anthropomorphous (än'thröpömôr'fūs) *a.* [Gk. *anthropos*, man; *morphe*, shape.] Resembling man.

anthropotomy (än'thröpöt'ömī) *n.* [Gk. *anthropos*, man; *temnein*, to cut.] Human anatomy.

Anthropozoic,—**Psychozoic**, *q.v.*

antiae (än'tiē) *n. plu.* [L. *antiae*, forelock.] Feathers at base of bill-ridge of some birds.

anti-ambulacral, — **antambulacral**, **abactinal**, *q.v.*

anti-apex,—lower end of axis, as in rootless plants.

antiauxin (än'tiōks'in) *n.* [Gk. *anti*, against; *auxein*, to grow.] Any organic compound which regulates or inhibits growth stimulation by auxins.

antibiosis (än'tibiō'sis) *n.* [Gk. *anti*, against; *biosis*, way of life.] Antagonistic association of organisms, as by production of harmful compounds.

antiblastic (äntilbläs'tik) *a.* [Gk. *anti*, against; *blastos*, bud.] *Appl.*

immunity due to forces which inhibit growth of invading organism.

antibody (än'tiböd'y) *n.* [Gk. *anti*, against; A.S. *bodig*, body.] Any substance formed in blood which reacts with a specific antigen, or inactivates or destroys toxins.

antibrachial (än'tibrā'kiäl) *a.* [Gk. *anti*, against; L. *brachium*, arm.] *Pert.* forearm; *appl.* fascia, muscles, vein, nerves; also antibrachial.

antibrachium,—**antebrachium**, *q.v.*

anticipation (än'tisipä'shün) *n.* [L. *ante*, before; *capere*, to take.] The manifestation of a condition or disease at a progressively earlier age in successive generations.

anticlinal (än'tikli'näl) *a.* [Gk. *anti*, against; *klinein*, to slope.] *Appl.* line of division of cells at right angles to surface of apex of a growing point; in quadrupeds, *appl.* one of lower thoracic vertebrae with upright spine towards which those on either side incline.

anticoagulin (än'tikōäg'ülīn) *n.* [Gk. *anti*, against; L. *coagulum*, rennet.] A substance which prevents coagulation of drawn blood, as hirudin.

anticryptic (än'tikrip'tik) *a.* [Gk. *anti*, against; *kryptos*, hidden.] *Appl.* protective coloration facilitating attack.

antecubital,—**antecubital**, *q.v.*

antidiuretic (än'tidiürēt'ik) *a.* [Gk. *anti*, against; *dia*, through; *ouron*, urine.] Reducing the volume of urine; *appl.* a hormone of posterior lobe of pituitary gland.

antidromic (äntidröm'ik) *a.* [Gk. *anti*, opposite; *dromos*, running.] Contrary to normal direction; *appl.* conduction of impulse along axon towards body of nerve cell; antidromous; *appl.* stipules with fused outer margins.

antidromy (äntid'römī) *n.* [Gk. *anti*, against; *dromos*, running.] Condition of spiral phyllotaxis with genetic spiral changing direction after each cycle.

anti-enzyme (än'tiēn'zīm) *n.* [Gk. *anti*, against; *en*, within; *zyme*, leaven.] A substance which retards or stops enzyme activity.

antigen (än'tijēn) *n.* [Gk. *anti*, against; *genos*, birth.] Substance which causes a series of physiologico-chemical changes resulting in formation of antibodies.

antigeny,—sexual dimorphism.

antihelix (än'tihē'liks) *n.* [Gk. *anti*, opposite; *helix*, a convolution.] The curved prominence in front of helix of ear.

antihormones (än'tihôr'mônz) *n. plu.* [Gk. *anti*, against; *hormaein*, to excite.] Substances which prevent the effect of hormones; chalones.

antilibium,—tragus, *q.v.*

antilysin (än'tilī'sin) *n.* [Gk. *anti*, against; *lyein*, to dissolve.] A substance which counteracts a lysis or lysis.

antimeres (än'timērz) *n. plu.* [Gk. *anti*, opposite; *meros*, part.] Corresponding parts, as left and right limbs, of a bilaterally symmetrical animal; a series of equal radial parts or actinomeris of a radially symmetrical animal.

antineuritic (än'tinūrī'tik) *a.* [Gk. *anti*, against; *neuron*, nerve.] *Appl.* vitamin B₁, lack of which causes polyneuritis.

antipepsin (än'tipēp'sin) *n.* [Gk. *anti*, against; *pēpsis*, digestion.] A stomach secretion which prevents action of pepsin on tissue proteins.

antiperistalsis (än'tipēristāl'sis) *n.* [Gk. *anti*, against; *peri*, around; *stalsis*, contraction.] Reversed peristalsis; peristaltic action in postero-anterior direction.

anti-pernicious anaemia factor,—vitamin B₁₂ or cobalamin, *q.v.*

antipetalous (än'tipēt'älūs) *a.* [Gk. *anti*, opposite; *petalon*, petal.] With stamens opposite petals.

antiphyte (än'tifit) *n.* [Gk. *anti*, opposite; *phyton*, plant.] The sporophyte in the antithetic alternation of generations, *opp.* proto-phyte.

antipodal (än'tip'ōdāl) *a.* [Gk. *anti*,

against; *pous*, foot.] *Appl.* group of three cells at chalazal end of embryo-sac; *appl.* cone of astral rays opposite spindle fibres.

antiprosate (än'tiprōs'tāt) *n.* [Gk. *anti*, opposite; *prostates*, one who stands before.] Bulbo-urethral or Cowper's gland.

antipygidial (än'tipijid'äl) *a.* [Gk. *anti*, against; *pygidion*, narrow rump.] *Appl.* bristles of seventh abdominal segment which extend to pygidium, in fleas.

antirachitic (än'tirākīt'ik) *a.* [Gk. *anti*, against; *rhachis*, spine.] *Appl.* vitamin D, lack of which causes rickets.

antiscorbutic (än'tiskōrbū'tik) *a.* [Gk. *anti*, against; L.L. *scorbutus*, scurvy.] *Appl.* vitamin C, lack of which causes scurvy.

antisepalous (än'tisēp'älūs) *a.* [Gk. *anti*, opposite; F. *sépale*, from L. *separare*, to separate.] With stamens opposite sepals.

antiseptic (än'tisēp'tik) *a.* [Gk. *anti*, against; *sepsis*, putrefaction.] Preventing putrefaction. *n.* A substance which destroys harmful micro-organisms.

antispadix (än'tispā'diks) *n.* [Gk. *anti*, against; *spadix*, palm branch.] A group of four modified tentacles in internal lateral lobes of Nautilus.

antisquama (än'tiskwā'mā) *n.* [Gk. *anti*, against; L. *squama*, scale.] Basal lobe next squama of insect wing; squama alaris or antitegula.

antisterility factor,—vitamin E.

antistyle (än'tistil) *n.* [Gk. *anti*, against; *stylos*, pillar.] Basal projection of stylifer in certain insects.

antitegula (än'titēg'ülā) *n.* [Gk. *anti*, against; L. *tegula*, tile.] Upper tegula or antisquama, *q.v.*

antithetic (än'tithēt'ik) *a.* [Gk. *antithesis*, opposition.] *Appl.* alternation of diploid and haploid generations, or of sporophyte and gametophyte generations.

antithrombin (än'tithröm'bin) *n.* [Gk. *anti*, against; *thrombos*, clot.] A substance, as formed in liver, which prevents clotting of blood.

antitoxin (än'titök'sin) *n.* [Gk. *anti*, against; *toxikon*, poison.] A substance or antibody which neutralises or binds a toxin.

antitragus (än'titrä'güs) *n.* [Gk. *anti*, opposite; *tragos*, goat.] Prominence opposite tragus of external ear.

antitrochanter (än'titrökän'tër) *n.* [Gk. *anti*, against; *trochanter*, a runner.] In birds, an articular surface on ilium against which trochanter of femur plays.

antitrope (än'titröp) *n.* [Gk. *anti*, opposite; *trope*, turn.] Any structure which forms a bilaterally symmetrical pair with another; antibody, *q.v.*

antitropic (än'titröp'ik) *a.* [Gk. *anti*, against; *trope*, turn.] Turned or arranged in opposite directions; arranged to form bilaterally symmetric pairs, as ribs of opposite sides; *cf.* syntropic.

antitropin,—antibody.

antitropous (äntit'röpüs) *a.* [Gk. *anti*, against; *trope*, turn.] Inverted; *appl.* embryos with radicle directed away from hilum; antitropal.

antitype (än'titip) *n.* [Gk. *anti*, equal to; *typos*, pattern.] A specimen of the same type as that chosen for designation of a species, and gathered at the same time and place.

antlia (änt'liä) *n.* [L. *antlia*, pump.] The spiral suctorial proboscis of Lepidoptera.

antorbital (äntör'bital) *a.* [L. *ante*, before; *orbis*, circle.] Situated in front of orbit; *appl.* bone, cartilage, process.

antrorse (äntrörs') *a., adv.* [L. *ante*, before; *vertere*, to turn.] Directed forwards or upwards.

antrum (än'trüm) *n.* [L. *antrum*, cavity.] A cavity or sinus; *e.g.*, maxillary sinus, cavity of pylorus.

anurous (änü'rüs) *a.* [Gk. *a*, without; *oura*, tail.] Tailless.

anus (ä'nūs) *n.* [L. *anus*, anus.] Posterior opening of the alimentary canal.

aorta (äör'tä) *n.* [Gk. *aorte*, the great artery.] The great trunk artery which carries pure blood to the body through arteries and their branches.

aortic (äör'tik) *a.* [Gk. *aorte*, the great artery.] *Pert.* aorta; *appl.* arch, hiatus, isthmus, lymph glands, semilunar valves, etc.

aortic bodies,—two small masses of chromaffin cells in a capillary plexus, one on each side of foetal abdominal aorta, being part of system for controlling oxygen content and acidity of blood; Zuckerkandl's bodies.

apandrous (äpän'drüs) *a.* [Gk. *apo*, away; *aner*, male.] Without antheridia; parthenogenetic, as oospores in certain Oomycetes.

apandry,—absence or non-function of male organs in plants; apandrous condition.

apatetic (äp'ätē'tik) *a.* [Gk. *apatetikos*, fallacious.] *Appl.* misleading coloration.

aperispermic (äpēr'ispēr'mik) *a.* [Gk. *a*, without; *peri*, around; *sperma*, seed.] *Appl.* seeds without nutritive tissue.

apertura piriformis,—anterior nasal aperture of skull.

apetalous (äpēt'älüs) *a.* [Gk. *a*, without; *petalon*, petal.] Without petals; monochlamydeous.

apex (ä'pëks) *n.* [L. *apex*, summit.] Tip or summit, as of lungs, heart, nose; styloid process of fibula; tip of epicone in Dinoflagellata; wing tip in insects.

aphanipterous (äf'änip'tērüs) *a.* [Gk. *aphanes*, unseen; *pteron*, wing.] Apparently without wings.

aphantobiont (äfän'töbī'önt) *n.* [Gk. *aphantos*, invisible; *bionai*, to live.] An ultramicroscopic organism; a filtrable virus.

apheliotropism (äfē'liöt'röpizm) *n.* [Gk. *apo*, away; *helios*, sun; *trope*, turn.] Tendency to turn away from light; phototropism.

aphlebia (ăflēb'yă) *n.* [Gk. *a*, without; *phleps*, vein.] Lateral outgrowth from base of frond-stalk in certain ferns.

aphodal (ăf'ôdăl) *a.* [Gk. *apo*, away; *hodos*, path.] *Appl.* type of canal system in sponges.

aphodus (ăf'ôdŭs) *n.* [Gk. *aphodos*, departure.] The short tube leading from flagellate chamber to excurrent canal in a type of canal system in sponges.

aphotic (ăfō'tik) *a.* [Gk. *a*, without; *phos*, light.] *Pert.* absence of light; *appl.* zone of deep sea where daylight fails to penetrate. *Opp.* photic.

aphyllous (ăfil'ŭs) *a.* [Gk. *a*, without; *phyllon*, leaf.] Without foliage leaves.

aphylly (ăfil'ŭ) *n.* [Gk. *a*, without; *phyllon*, leaf.] Suppression or absence of leaves.

apical (ăp'ikăl) *a.* [L. *apex*, summit.] At tip or summit; *pert.* distal end; *appl.* cell at tip of growing point; *appl.* meristem; *appl.* style arising from summit of ovary; *appl.* dominance, of terminal bud; *appl.* aboral plates of echinoderms; *appl.* neural plate of trochophore and tornaria.

apicotransverse (ăp'ikôtrănsvĕrs') *adv.* [L. *apex*, summit; *transversus*, crosswise.] Situated across at or near the tip; *appl.* mitotic spindle.

apiculate (ăpik'ulăt) *a.* [*Dim.* of L. *apex*, summit.] Forming abruptly to a small tip, as leaf.

apiculus (ăpik'ŭlŭs) *n.* [*Dim.* of L. *apex*, summit.] A small apical termination, as in some protozoa, or of certain spores; reflexed portion of antennal club, in some Lepidoptera.

apilary (ăpil'ări) *a.* [Gk. *a*, not; *pilos*, felt cap.] Having upper lip wanting or suppressed in corolla.

apileate (ăpil'ĕăt) *a.* [L. *a*, away; *pileatus*, wearing a cap.] Without a pileus.

apitoxin (ăpitök'sin) *n.* [L. *apis*,

bee; Gk. *toxikon*, poison.] Main toxic fraction of bee venom.

apituitarism (ăp'itŭ'titărizm) *n.* [L. *a*, away; *pituita*, phlegm.] Absence or deficiency of pituitary gland secretion; hypophyophysism.

aplacental (ăplăsĕn'tăl) *a.* [L. *a*, away; *placenta*, flat cake.] Having no placenta, as monotremes.

aplanetic (ăplănĕt'ik) *a.* [Gk. *a*, not; *planetes*, wanderer.] Not motile; *appl.* spores.

aplanetism (ăplăn'ĕtizm, ăplănĕ'tizm) *n.* [Gk. *a*, not; *planetes*, wanderer.] Absence of motile spores.

aplanogametangium (ăplăn'ôgămĕ-tăn'jŭm) *n.* [Gk. *a*, not; *planos*, wandering; *gametes*, spouse; *angeion*, vessel.] Cell in which aplano-gametes are formed.

aplanogamete (ăplăn'ôgămĕt') *n.* [Gk. *a*, not; *planos*, wandering; *gametes*, spouse.] A non-motile conjugating germ-cell of various plants and animals.

aplanosporangium (ăplăn'ôspō-răn'jŭm) *n.* [Gk. *a*, not; *planos*, wandering; *sporos*, seed; *angeion*, vessel.] A sporangium producing aplanospores.

aplanospore (ăplăn'ôspōr) *n.* [Gk. *a*, not; *planos*, wandering; *sporos*, seed.] A non-motile resting spore of algae; an encysted spore of fungi; aplanoplastid. *Opp.* planospore.

aplasia (ăplă'ziă) *n.* [Gk. *a*, without; *plassein*, to mould.] Arrested development; non-development.

aplerotic (ăplĕrō'tik) *a.* [Gk. *a*, not; *pleroun*, to fill.] Not entirely filling a space; *appl.* oospore not extended to oogonial wall. *Opp.* plerotic.

aploperistomatous (ăp'lōpĕr'istōm-ătŭs) *a.* [Gk. *aploos*, single; *peri*, around; *stoma*, mouth.] Having a peristome with one row of teeth, as mosses.

aplostemonous (ăp'lōstĕm'ônŭs) *a.* [Gk. *aploos*, single; *stemon*, spun thread.] With a single row of stamens.

apneustic (äpnū'stik) *a.* [Gk. *a*, without; *pneustos*, breath.] With spiracles closed or absent; *appl.* aquatic larvae of certain insects.

apobasidium (äp'obäsíd'iūm) *n.* [Gk. *apo*, sprung from; *basis*, base; *idion*, *dim.*] Protobasidium, *q.v.*; a basidium having sterigmata with terminal spores, *opp.* autobasidium.

apobiotic (äp'öbiöt'ik) *a.* [Gk. *apo*, away; *bios*, life.] Causing or *pert.* decrease in vital energy of cells or tissue; *pert.* apobiosis or physiological death, *opp.* death of entire body.

apocarpous (äp'ökâr'pūs) *a.* [Gk. *apo*, away; *karpōs*, fruit.] Having separate or partially united carpels. *Opp.* syncarpous.

apocarpus,—apocarpous condition.

apocentric (äp'ösën'trik) *a.* [Gk. *apo*, away; *kentron*, centre.] Diverging or differing from the original type, *opp.* archcentric.

apochlorosis (äp'öklörō'sis) *n.* [Gk. *apo*, away; *chloros*, grass green.] The absence of chlorophyll, in Flagellata.

apocrine (äp'ökrîn) *a.* [Gk. *apo*, away; *krinein*, to separate.] *Appl.* glands secreting only part of cell contents; *cf.* holocrine, merocrine.

apocyte (äp'ösit) *n.* [Gk. *apo*, away; *kytos*, hollow.] A multinucleate cell; a plurinucleate mass of protoplasm.

apodal (äp'ödäl), *a.* [Gk. *a*, without; *pous*, foot.] Having no feet; without ventral fin; stemless; apodous.

apodema (äp'ödē'mä) *n.* [Gk. *apo*, away; *demas*, body.] An internal skeletal projection in Arthropoda; apodeme.

apoderma (äp'ödēr'mä) *n.* [Gk. *apo*, later; *derma*, skin.] Enveloping membrane secreted during resting stage between instars by certain Acarina.

apodous,—apodal.

apo-enzyme (äp'öen'zīm) *n.* [Gk. *apo*, away; *en*, in; *zyme*, leaven.] Specific protein part of an enzyme, requiring co-enzyme for action.

apogamy (äpög'ämī) *n.* [Gk. *apo*, away; *gamos*, marriage.] Reproduction without intervention of sexual organs.

apogeotropic (äp'øjē'ötröp'ik) *a.* [Gk. *apo*, away; *gaia*, earth; *trope*, turn.] Turning away from the earth; ageotropic.

apogeotropism (äp'øjēöt'röpizm) *n.* [Gk. *apo*, away; *gaia*, earth; *trope*, turn.] Tendency to act contrarily to law of gravity; negative geotropism.

apolegamic (äp'ölägäm'ik) *a.* [Gk. *apolegein*, to choose; *gamos*, marriage.] *Appl.* mating associated with sexual selection.

apomeiosis (äp'ömiō'sis) *n.* [Gk. *apo*, away; *meion*, smaller.] Sporogenesis without haplois.

apomict (äp'ömikt) *n.* [Gk. *apo*, away; *miktos*, mixed.] A biotype resulting from apogamy and vegetative propagation.

apomixis (äp'ömik'sis) *n.* [Gk. *apo*, away; *mixis*, a mixing.] A reproductive anomaly in plants akin to parthenogenesis, but including development from cells other than ovules. *Opp.* amphimixis.

aponeurosis (äp'önürō'sis) *n.* [Gk. *apo*, from; *neuron*, sinew.] The flattened tendon for insertion of, or membrane investing, certain muscles.

aponeurosis epicranialis,—galea aponeurotica.

apopetalous (äp'öpēt'älūs) *a.* [Gk. *apo*, away; *petalon*, leaf.] With free petals; *cf.* apetalous.

apophyllous (äp'öfil'ūs) *a.* [Gk. *apo*, away; *phyllon*, leaf.] *Appl.* the parts of a single perianth whorl when they are free leaves.

apophysis (äpöf'isis) *n.* [Gk. *apo*, away; *phyein*, to grow.] Process from a bone, usually for muscle attachment; endosternite or sternal apodeme; swelling beneath reproductive structure on fungal hypha; photosynthetic region forming swelling at base of capsule in some mosses; small protuberance at apex of ovuliferous scale in pine.

apoplasmodial (äp'öpläsmō'diäl) *a.* [Gk. *apo*, away; *plasma*, something moulded.] Not forming a typical plasmodium.

apoplastid (äpöpläs'tid) *n.* [Gk. *apo*, away; *plastos*, formed; *idion*, dim.] A plastid having no chromatophores.

apopyle (äp'öpil) *n.* [Gk. *apo*, away; *pyle*, gate.] Exhalent pore of sponge.

aporogamy (äpörög'amī) *n.* [Gk. *a*, without; *poros*, channel; *gamos*, marriage.] Fertilisation without entry of pollen-tube through micropyle of ovule, *opp.* porogamy.

aporrhysa (äpör'isä) *n. plu.* [Gk. *aporrhēin*, to flow away.] Exhalant canals in sponges; *opp.* epirrhysa.

aposematic (äp'ösēmät'ik) *a.* [Gk. *apo*, away; *sema*, signal.] *Appl.* warning colours which serve to frighten away enemies.

asporogony (äp'öspörög'öni) *n.* [Gk. *apo*, away; *sporos*, seed; *gonos*, birth.] Absence of sporogony.

asporory (äpös'pöri) *n.* [Gk. *apo*, away; *sporos*, seed.] Production of a gametophyte from a sporophyte without intervention of spore-formation.

apostasis (äpös'täsis) *n.* [Gk. *apo*, away; *stasis*, standing.] Condition of abnormal growth of axis which thereby causes separation of perianth whorls from one another.

apostaxis (äp'östäk'sis) *n.* [Gk. *apostaxis*, a dribbling.] Excessive or abnormal exudation.

apostrophe (äpös'tröfē) *n.* [Gk. *apo*, away; *strophe*, turn.] Arrangement of chloroplasts along lateral walls of leaf cells.

apothecium (äp'öthē'siüm, -shüüm) *n.* [Gk. *apo*, away; *theke*, cup.] A cup-shaped ascocarp; ascocarp of lichens.

apothelium (äp'öthē'lüüm) *n.* [Gk. *apo*, away; *thele*, nipple.] A secondary tissue derived from a primary epithelium.

apotome (äp'ötöm) *n.* [Gk. *apo*, away; *tome*, a cutting.] A part appearing as if cut off, as from episternum, trochanter, etc., in Arthropoda.

apotracheal (äpöträ'kēal) *a.* [Gk. *apo*, away; *L. trachea*, windpipe.] With xylem parenchyma independent of vessels, or dispersed; *appl.* wood.

apotropous (äpöt'röpüs) *a.* [Gk. *apo*, away; *trope*, turn.] Anatropal and with ventrally - situated raphe.

apotype,—hypotype, *q.v.*

apotypic (äp'ötüp'ik) *a.* [Gk. *apo*, away; *typos*, pattern.] Diverging from a type.

apparato reticolare,—see Golgi complex.

appendage (äpēn'dēj) *n.* [L. *ad*, to; *pendere*, to hang.] An organ or part attached to a trunk, as a limb, branch, etc.; a hyphal or rigid structure for attachment or detachment of perithecium to or from mycelium, varying in structure and function in different Ascomycetes.

appendices,—*plu.* of appendix.

appendices colli (äpēn'disēz kōl't) *n. plu.* [L. *ad*, to; *pendere*, to hang; *collum*, neck.] Exterior throat appendages or tassels, of goat, sheep, pig, etc.

appendicular (äp'ëndik'ülär) *a.* [L. *ad*, to; *pendere*, to hang.] *Pert.* appendages; *appl.* skeleton of limbs, *opp.* axial skeleton; *pert.* vermiform appendix; *appl.* artery.

appendiculate (äp'ëndik'ülät) *a.* [L. *ad*, to; *pendere*, to hang.] Having a small appendage, as a stamen or filament.

appendiculum (äp'ëndik'ülüm) *n.* [L. *appendicula*, small appendage.] Remains of the partial veil on rim of pileus.

appendix (äpēn'diks) *n.* [L. *ad*, to; *pendere*, to hang.] An outgrowth, especially the vermiform appendix.

applanate (äpl'anät) *a.* [L. *ad*, to; *planatus*, flattened.] Flattened.

apposition (ăp'ôzish'un) *n.* [L. *ad*, to; *ponere*, to place.] The formation of successive layers in growth of a cell wall; *cf.* intussusception.

appressorium (ăp'rēsō'rîŭm) *n.* [L. *ad*, to; *pressare*, to press.] Adhesive disc, as of haustorium or sucker; modified hyphal tip which may form haustorium or penetrate substrate, as of parasitic fungi.

aproterodont (ăprôt'ērödönt) *a.* [Gk. *a*, without; *pteros*, first; *odous*, tooth.] Having no premaxillary teeth.

apteria (ăptērîă) *n. plu.* [Gk. *a*, without; *pteron*, wing.] Naked or down-covered surfaces between pterylae or feather-tracts.

apterous (ăp'tērŭs) *a.* [Gk. *a*, without; *pteron*, wing.] Wingless; having no wing-like expansions on stems or petioles; exalate.

apterygial (ăp'tērîj'îăl) *a.* [Gk. *a*, without; *pterygion*, *dim.* of *pteron*, wing.] Wingless; without fins.

apterygotous (ăptērîgō'tŭs) *a.* [Gk. *a*, without; *pterygotos*, winged.] Resembling or *pert.* primitive wingless insects.

aptychus (ăpt'îkŭs) *n.* [Gk. *a*, without; *ptyche*, fold.] A horny or calcareous structure, possibly an operculum, of ammonites.

apyrene (ăpî'rĕn) *a.* [Gk. *a*, not; *pyren*, fruit-stone.] *Appl.* spermatozoa lacking nucleus; *cf.* eupyrene, oligopyrene; seedless, *appl.* certain cultivated fruits.

aquatic (ăkwăt'îk) *a.* [L. *aqua*, water.] *Pert.* water; living in or frequenting water. *n.* An aquatic plant.

aqueduct (ăk'wĕdŭkt) *n.* [L. *aqua*, water; *ducere*, to lead.] A channel or passage, as that of cochlea, and of vestibule of ear; aqueductus.

aqueduct of Sylvius [*F. de Boë* or *Sylvius*, Flemish anatomist],—cerebral aqueduct, aqueduct of the midbrain, or iter, connecting

third and fourth ventricle; meso-coele.

aqueous (ă'kwĕŭs) *a.* [L. *aqua*, water.] Watery, *appl.* humour, fluid occupying space between lens and cornea; *appl.* tissue consisting of thin-walled watery parenchymatous cells.

arachnactis (ărăknăk'tîs) *n.* [Gk. *arachne*, spider; *aktis*, ray.] Larval stage of cerianthid Zoantharia.

arachnid (ărăk'nîd) *a.* [Gk. *arachne*, spider.] Spider-like; *pert.* spiders.

arachnidium (ărăknîd'îŭm) *n.* [Gk. *arachne*, spider; *idion*, *dim.*] The spinning apparatus of a spider, including spinning-glands and spinnerets.

arachnoid (ărăk'noid) *a.* [Gk. *arachne*, spider, cobweb; *eidos*, form.] *Pert.* or resembling a spider; like a cobweb; consisting of fine entangled hairs; *appl.* the thin membrane between dura and pia mater. *n.* The arachnoid membrane.

arachnoideal (ărăknoid'ĕăl) *a.* [Gk. *arachne*, cobweb; *eidos*, form.] *Pert.* the arachnoid; *appl.* granulations: Pacchionian bodies, *q.v.*

arbacioid,—*see* diadematoid.

arborescent (ăr'bōrĕs'ĕnt) *a.* [L. *arborescens*, growing like a tree.] Branched like a tree.

arborisation (ăr'bōrîză'shŭn) *n.* [L. *arbor*, tree.] Tree-like branching, as of nerve cell processes; arborescence.

arboroid (ăr'bōroid) *a.* [L. *arbor*, tree; Gk. *eidos*, like.] Tree-like, designating general structure of a protozoan colony; dendritic.

arbor vitae (ăr'bōr vî'tĕ) *n.* [L. *arbor*, tree; *vita*, life.] The tree of life, *appl.* arborescent appearance of cerebellum in section.

arbuscle (ăr'bŭsl) *n.* [L. *arbuscula*, shrub.] A tree-like small shrub, or a dwarf tree; a branched haustorium, as in certain fungi; arbuscula.

arbuscular (ăr'bŭs'kŭlăr) *a.* [L. *arbuscula*, shrub.] Resembling a tree-like small shrub.

arcade (ârkād') *n.* [L. *arcus*, arch.] An arched channel or passage; a bony arch, as supra- and infra-temporal arches in skull; transverse canal connecting lateral canals, in *Ascaris*.

Archaean (ârkē'ân) *a.* [Gk. *archaios*, ancient.] *Appl.* geological era before Palaeozoic; Pre-Cambrian.

archaeocytes (âr'kēōsīts) *n. plu.* [Gk. *archaios*, primitive; *kytos*, hollow.] Cells arising from undifferentiated blastomeres and ultimately giving rise to germ-cells and gametes.

archaeostomatous (âr'kēōstôm'âtūs) *a.* [Gk. *archaios*, primitive; *stoma*, mouth.] Having the blastopore persistent and forming mouth.

Archaeozoic (âr'kēōzō'îk) *a.* [Gk. *archaios*, ancient; *zoe*, life.] *Pert.* earliest geological era, age of unicellular life.

arch-centra (âr'ch'sên'trâ) *n. plu.* [L. *arcus*, bow; *centrum*, centre.] Centra formed by fusion of basal growths of primary arcualia external to chordal sheath; *cf.* chordacentra.

archebiosis (âr'kēbīō'sis) *n.* [Gk. *arche*, beginning; *biosis*, living.] The origin of life; archegenesis.

archecentric (âr'kēsên'trik) *a.* [Gk. *arche*, beginning; *kentron*, centre.] Conforming more or less with the original type, *opp.* apocentric.

archedictyon (âr'kēdik'tiōn) *n.* [Gk. *arche*, beginning; *diktyon*, net.] An intervein network in wings of some primitive insects.

archegoniophore (âr'kēgō'niōfôr) *n.* [Gk. *arche*, beginning; *gonos*, offspring; *pherein*, to bear.] Branches of bryophytes, or parts of fern prothalli, bearing archegonia.

archegonium (âr'kēgō'niūm) *n.* [Gk. *arche*, beginning; *gonos*, offspring.] A female gametangium in which oospheres are formed, and in which the young plant begins development.

archencephalon (âr'k'ênkēf'âlōn, -sēf-) *n.* [Gk. *arche*, beginning; *engkephalos*, brain.] The primitive forebrain or cerebrum.

archenteron (âr'kên'tērōn) *n.* [Gk. *arche*, beginning; *enteron*, gut.] The cavity of gastrula which forms primitive gut of embryo.

archeo-,—archaeo-

archespore (âr'kēsپōr) *n.* [Gk. *arche*, beginning; *sporos*, seed.] The tetrahedral or meristematic cell of a sporangium; cell of an archesporium.

archesporium (âr'kēsپō'rîūm) *n.* [Gk. *arche*, beginning; *sporos*, seed.] A cell or mass of cells, dividing to form spore mother-cells; in liverworts, spore mother-cells and elater-forming cells.

archetype,—architype, *q.v.*

archiamphiaster (âr'kiâm'fiās'tēr) *n.* [Gk. *archi*, first; *amphi*, on both sides; *aster*, star.] The amphiaster forming first or second polar body in maturation of ovum.

archibenthic (âr'kibên'thik) *a.* [Gk. *archi*, first; *benthos*, depths of sea.] *Pert.* bottom of sea from edge of continental shelf to upper limit of abyssobenthic zone, at depths of *ca.* 200 to 1000 metres.

archiblast (âr'kiblâst) *n.* [Gk. *archi*, first; *blastos*, bud.] Egg proto-plasm.

archiblastic (âr'kiblâs'tik) *a.* [Gk. *archi*, first; *blastos*, bud.] Having total and equal segmentation.

archiblastula (âr'kiblâs'tulâ) *n.* [Gk. *archi*, first; *blastos*, bud.] Typical hollow ball of cells derived from an egg with total and equal segmentation.

archicarp (âr'kikârp) *n.* [Gk. *archi*, first; *karpōs*, fruit.] Spirally coiled region of thallus, or stalk bearing oogonium, of certain fungi.

archicerebrum (âr'kisēr'ēbrūm) *n.* [Gk. *archi*, first; L. *cerebrum*, brain.] The primitive brain, as the supra-oesophageal ganglia of higher invertebrates; primary brain of arthropods.

archichlamydeous (âr'kiklām'id'ēūs) *a.* [Gk. *archi*, first; *chlamys*, cloak.] Having no petals, or having petals entirely separate from one another.

archicoel (âr'kîsêl) *n.* [Gk. *archi*, first; *kôilos*, hollow.] The primary body-cavity or space between alimentary canal and ectoderm in development of various animals.

archidictyon,—see archedictyon.

archigenesis (âr'kijên'êsîs) *n.* [Gk. *archi*, first; *genesis*, descent.] Abiogenesis, *q.v.*

archigony (âr'kîg'ônî) *n.* [Gk. *archi*, first; *gonos*, begetting.] The first origin of life.

archinephric (âr'kinêf'rîk) *a.* [Gk. *archi*, first; *nephros*, kidney.] *Appl.* duct into which pronephric tubules open; *pert.* archinephros.

archinephridium (âr'kinêfrîd'îüm) *n.* [Gk. *archi*, first; *nephros*, kidney; *idion*, *dim.*] Excretory organ of certain larval invertebrates; solenocyte, *q.v.*

archinephros (âr'kinêf'rôs) *n.* [Gk. *archi*, first; *nephros*, kidney.] The primitive kidney; Wolffian body.

archipallium (âr'kîpâl'îüm) *n.* [Gk. *archi*, first; *L. pallium*, mantle.] The olfactory region of cerebral hemispheres, comprising olfactory bulbs and tubercles, pyriform lobes, hippocampus, and fornix. *Opp.* neopallium.

archiplasm (âr'kîplâzm) *n.* [Gk. *archi*, first; *plasma*, mould.] The substance of attraction-sphere, astral rays, and spindle-fibres; also archoplasm; kinoplasm; idiosome, *q.v.*

archipterygium (âr'kîtêrlj'îüm) *n.* [Gk. *archi*, first; *pterygion*, little wing.] Type of fin in which skeleton consists of elongated segmented central axis and two rows of jointed rays.

architomy (âr'kît'ômî) *n.* [Gk. *archi*, first; *tome*, cutting.] Reproduction by fission with subsequent regeneration, in certain annelids; *opp.* paratomy.

architype (âr'kîtîp) *n.* [Gk. *archi*, first; *typos*, type.] An original type from which others may be derived.

archiplasm,—archiplasm, *q.v.*

arcicentrous (âr'sîsên'trûs) *a.* [L.

arcus, bow; *centrum*, centre.] *Appl.* vertebral column in which centra are mainly derived from arch tissue; arcocentrous.

arciferous (ârsîf'êrûs) *a.* [L. *arcus*, bow; *ferre*, to carry.] *Appl.* pectoral arch of toads, etc., where precoracoid and coracoid are separated and connected by arched epicoracoid.

arciform (âr'sîfôrm) *a.* [L. *arcus*, bow; *forma*, shape.] Shaped like an arch or bow; arcuate.

arcocentrous (âr'kôsên'trûs) *a.* [L. *arcus*, bow; *centrum*, centre.] *Appl.* vertebral column with inconspicuous chordal sheath and centra derived from arch tissue.

arcocentrum (âr'kôsên'trûm) *n.* [L. *arcus*, bow; *centrum*, centre.] A centrum formed from parts of neural and haemal arches.

Arctogaea (âr'ktôjê'ä, -gâ'yä) *n.* [Gk. *Arktos*, Great Bear; *gaia*, earth.] Zoogeographical area comprising Holarctic, Ethiopian, and Oriental regions.

arcualia (âr'küäl'îä) *n. plu.* [L. *arcus*, bow.] Small cartilaginous pieces, dorsal and ventral, fused or free, on vertebral column of fishes.

arcuate (âr'küät) *a.* [L. *arcuatus*, curved.] Curved or shaped like a bow.

arculus (âr'külûs) *n.* [*Dim.* of L. *arcus*, bow.] Arc formed by two wing veins of certain insects.

ardellae (ârdêl'ê) *n. plu.* [Gk. *ardein*, to sprinkle.] Small apothecia of certain lichens, having appearance of dust.

area (ä'rëä) *n.* [L. *area*, ground-space.] A surface, as area opaca, area pellucida, area vasculosa, etc.; part enclosed by a raised ridge, as in Polyzoa; a region.

arenaceous (ârenâ'shûs) *a.* [L. *arena*, sand.] Having properties or appearance of sand; sandy; growing in sand.

arenicolous (ârenîk'ölûs) *a.* [L. *arena*, sand; *colere*, to inhabit.] Living in sand; psammophilous.

areola (ärē'ölä) *n.* [L. *areola*, *dim.* of *area*, space.] A small coloured circle round a nipple; part of iris bordering pupil of eye; one of small spaces or interstices of a special kind of tissue; area defined by cracks on surface of lichens; poroids when surrounded by thickened margins; scrobicula, *q.v.*

areolar (ärē'ölär) *a.* [L. *areola*, small space.] Of or like an areola; *pert.* an areola.

areolate (ärē'ölät) *a.* [L. *areola*, small space.] Divided into small areas defined by cracks or other margins.

areolation (ärēölä'shün) *n.* [L. *areola*, small space.] Areolar pattern or network appearance, as of cell margins in tissue.

areole (är'ēöl) *n.* [L. *areola*, small space.] Areola, *q.v.*; space occupied by a group of hairs or spines, as in Cactus.

argentaffin (ärjēn'täfin) *a.* [L. *argentum*, silver; *affinis*, related.] Staining with silver salts, *appl.* cells; argyrophil.

argenteal (ärjēn'tēäl) *a.* [L. *argenteus*, silvern.] *Appl.* layer of eye containing calcic crystals.

argenteous (ärjēn'tēüs) *a.* [L. *argenteus*, silvern.] Like silver.

argenteum (ärjēn'tēüm) *n.* [L. *argenteus*, silvern.] A dermal reflecting tissue layer of iridocytes, without chromatophores, in fishes.

arginase (är'jinäs) *n.*—a liver enzyme acting on the amino-acid arginine ($C_6H_{14}O_2N_4$), urea and ornithine being separated by hydrolysis.

argyrophil (är'jiröfil) *a.* [Gk. *argyros*, silver; *philos*, loving.] Staining with silver salts, *appl.* fibres of reticular tissue; argent-affin; argentophil, *appl.* basal bodies or blepharoplasts.

aril (är'il) *n.* [F. *arille*, Sp. *arillo*, a small hoop.] An additional integument formed on some seeds after fertilisation.

arillode (är'ilöd) *n.* [F. *arille*, hoop; Gk. *eidos*, like.] A false arillus arising from region of micropyle as an expansion of exostome.

arillus (äril'üs) *n.* [L.L. *arillus*, aril.] An aril, *q.v.*

arista (äris'tä) *n.* [L. *arista*, awn.] Awn; long-pointed process as in many grasses; a bristle borne by antenna of many brachycerous Diptera.

aristate (äris'tät) *a.* [L. *arista*, awn.] Provided with awns, or with a well-developed bristle; *appl.* insect antenna.

aristogenesis (är'istöjēn'esis) *n.* [Gk. *aristos*, best; *genesis*, descent.] Process of evolving new biomechanism from the germ plasm; creative principle or potentiality in origin of species.

aristogenic,—eugenic, *q.v.*

Aristotle's lantern,—masticating apparatus of sea-urchin.

aristulate (äris'tülät) *a.* [*Dim.* of L. *arista*, awn.] Having a short awn or bristle.

arkyochrome (är'kiökröm) *a.* [Gk. *arkys*, net; *chroma*, colour.] With Nissl granules arranged like network; *appl.* certain neurones.

armature (är'mätür) *n.* [L. *armatura*, armour.] Anything which serves to defend, as hairs, prickles, thorns, spines, stings, etc.

armilla (ärmil'ä) *n.* [L. *armilla*, armllet.] A bracelet-like fringe; superior annulus or manchette of certain fungi.

armillate,—fringed around; having an armilla.

arm-palisade,—palisade tissue in which the chloroplast-bearing surface is enlarged by infolding of cell-walls beneath the epidermis.

arolium (ärö'liüm) *n.* [Gk. *arole*, protection.] Median lobe or pad on praetarsus of many insects.

aromorph (ä'römôrf) *n.* [Gk. *airein*, to raise; *morphe*, form.] A character or structure resulting from aromorphosis.

aromorphosis (ä'römôrf'fösis) *n.* [Gk. *airein*, to raise; *morphosis*, shaping.] Evolutionary change towards an increase in life energy, *e.g.* evolution of a biting mouth skeleton from gill arches; *opp.* evolution of a merely adaptational character.

array (ārā') *n.* [O.F. *arroi*, order.]

Arrangement in order of magnitude.

arrect (ārēkt') *a.* [L. *arrectus*, set upright.] Upright; erect.

arrectores pilorum,—bundles of non-striped muscular fibres associated with hair follicles,—contraction causing hair to stand on end. *Sing.* arrector pili.

arrhenogenic (ārēn'ōjēn'ik) *a.* [Gk. *arrhen*, male; *genos*, offspring.]

Producing offspring preponderantly or entirely male.

arrhenoid (ārēn'oid) *a.* [Gk. *arrhen*, male; *eidos*, form.] Exhibiting male characteristics, as genetically female animals undergoing sex-reversal. *n.* Sperm-aster during fertilisation of ovum.

arrhenoplasm (ārēn'ōplāzm) *n.* [Gk. *arrhen*, male; *plasma*, mould.] Male plasm, in reference to theory that all protoplasm consists of arrhenoplasm and thelyplasm.

arrhenotoky (ārēnōt'ōki) *n.* [Gk. *arrhen*, male; *tokos*, birth.] Parthenogenetic production of males.

arrhizal (ār'izāl) *a.* [Gk. *arrhizos*, not rooted.] Without true roots, as some parasitic plants; arrhizous.

arrhostia (ārōstī'ā) *n.* [Gk. *arrhostia*, ill health.] A normal condition or trend in development or evolution, which resembles a diseased condition, *e.g.*, extreme size in certain extinct vertebrates resembling overaction of pituitary gland.

artefact (ār'tēfākt) *n.* [L. *ars*, art; *factus*, made.] An appearance, or apparent structure, due to preparation and not natural.

artenkreis (ār'tēnkris) *n.* [Ger. *Art*, species; *Kreis*, circle.] Complex of species which replace one another geographically; super-species.

arterial (ārtē'riāl) *a.* [L. *arteria*, artery.] *Pert.* an artery, or system of channels by which blood issues to body from heart.

arterial circle,—*see* circulus arteriosus.

arteriolar-venular,—*pert.* arterioles and venules; *appl.* anastomosis.

arteriole (ārtē'riōl) *n.* [L. *arteriola*, small artery.] A small artery.

artery (ār'tēri) *n.* [L. *arteria*, artery.] A vessel which conveys blood from heart to body.

arthritic (ārthrit'ik) *a.* [Gk. *arthron*, joint.] *Pert.* or at joints; arthral.

arthrobranchiae (ār'thrōbrāng'kiē) *n. plu.* [Gk. *arthron*, joint; *branchia*, gills.] Joint-gills, arising at junction of thoracic appendage with trunk, of Arthropoda.

arthrodia (ārthrō'diā) *n.* [Gk. *arthron*, joint.] A joint admitting of only gliding movements.

arthrodial (ārthrō'diāl) *a.* [Gk. *arthron*, joint.] *Appl.* articular membranes connecting thoracic appendages with trunk, as in arthropods.

arthrogenous (ārthrōj'ēnūs) *a.* [Gk. *arthron*, joint; *genos*, descent.] Formed as a separate joint, as spores; developed from separated portions of a plant.

arthromere (ār'thrōmēr) *n.* [Gk. *arthron*, joint; *meros*, part.] An arthropod body-segment or somite.

arthropod (ār'thrōpōd) *a.* [Gk. *arthron*, joint; *pous*, foot.] With jointed legs; *pert.* phylum including Crustacea, Myriopoda, Insecta, Arachnoidea.

arthropterous (ārthrōp'tērūs) *a.* [Gk. *arthron*, joint; *pteron*, wing.] Having jointed fin-rays, as fishes.

arthrospore (ārth'rōspōr) *n.* [Gk. *arthron*, joint; *sporos*, seed.] A resting moniliform bacterial cell; a cell formed by segmentation of a hypha.

arthrosterigmata (ār'thrōstērig'mātā) *n. plu.* [Gk. *arthron*, joint; *sterigma*, support.] Jointed sterigmata.

arthrostracous (ārthrōs'trākūs) *a.* [Gk. *arthron*, joint; *ostrakon*, shell.] Having a segmented shell.

arthrotergal (ār'thrōtēr'gāl) *a.* [Gk. *arthron*, joint; L. *tergum*, back.] *Appl.* median dorsal flexor of opisthosoma in Limulus.

arthrous (ār'thrūs) *a.* [Gk. *arthron*, joint.] Jointed; articulate.

articular (ärtik'ülär) *a.* [L. *articulus*, joint.] *Pert.* or situated at a joint; *appl.* cartilage, lamellae, surface, capsule, etc.

articularis *genus*, — subcrural muscle.

articulated (ärtik'ülätöd) *a.* [L. *articulus*, joint.] Jointed; articulate; separating easily at certain points.

articulation (är'tikülä'shün) *n.* [L. *articulus*, joint.] A joint between bones or segments, or between segments of a stem.

artifact,—*artefact, q.v.*

artiodactyl (är'tiödäk'til) *a.* [Gk. *artios*, even; *daktylos*, finger.] Having an even number of digits.

arytaenoid (är'itē'noid) *a.* [Gk. *arytaina*, ladle; *eidōs*, form.] Pitcher-like; *appl.* two cartilages at back of larynx, also glands, muscles, etc.

asc,—*ascus*.

asci,—*plu.* of *ascus*.

ascidial (äsid'iäl) *a.* [Gk. *askidion*, *dim.* of *askos*, bag.] Sac-like; *appl.* certain specialised, or abnormal, floral and foliage leaves; *pert.* ascidium.

ascidian (äsid'iän) *a.* [Gk. *askidion*, little bag.] Like an ascidian or sea-squirt.

ascidium (äsid'iüm) *n.* [Gk. *askidion*, little bag.] A pitcher-leaf, as in *Nepenthes*.

ascigerous (äsi'j'ërüs) *a.* [Gk. *askos*, bag; L. *gerere*, to bear.] Bearing asci, as certain hyphae in fungi; asciferous.

ascocarp (äs'kökârp) *n.* [Gk. *askos*, bag; *karpōs*, fruit.] Asci with their protective covering; sporocarp of Ascomycetes.

ascogenous (äsköj'ënüs) *n.* [Gk. *askos*, bag; *-genes*, producing.] Producing asci; *appl.* hyphae, cells.

ascogonium (äs'kögō'nium) *n.* [Gk. *askos*, bag; *gonos*, offspring.] A specialised hyphal branch which gives rise to ascogenous hyphae or an ascus; oogonium of Ascomycetes.

ascoma (äs'kōmā) *n.* [Gk. *askoma*,

leather padding.] Disc-shaped ascocarp in certain fungi.

ascophore (äs'köfōr) *n.* [Gk. *askos*, bag; *pherein*, to bear.] Ascocarp.

ascoplasm (äs'köplāzm) *n.* [Gk. *askos*, bag; *plasma*, mould.] Cytoplasm of an ascus involved in spore formation, *opp.* epiplasm.

ascorbic acid,—pure vitamin C, deficiency of which in diet causes dental disorders and scurvy; hexuronic acid, $C_6H_8O_6$.

ascospore (äs'köspōr) *n.* [Gk. *askos*, bag; *sporos*, seed.] One of the spores produced in an ascus.

ascostome (äs'köstōm) *n.* [Gk. *askos*, bag; *stoma*, mouth.] Apical pore of an ascus.

ascus (äs'küš) *n.* [Gk. *askos*, bag.] A membranous spore-sac, as of Ascomycetes.

ascuspore,—*ascostome*.

ascyphous (äsi'fūs) *a.* [Gk. *a*, without; *skýphos*, cup.] Without a cup-shaped expansion of the podetium, as some lichens.

-ase [*diastase*],—suffix denoting an enzyme, and joined to a root naming the substance acted on or the type of reaction.

asemic (äšé'mik) *a.* [Gk. *asemos*, without sign.] Without markings.

aseptate (äšép'tāt) *a.* [L. *a*, not; *septum*, partition.] Without any septum.

asexual (äšék'süäl) *a.* [Gk. *a*, without; L. *sexus*, sex.] Having no apparent sexual organs; parthenogenetic or vegetative, as *appl.* reproduction.

asiphonate (äsi'fōnāt) *a.* [L. *a*, not; *sipho*, tube.] *Appl.* larvae whose respiratory tubes open directly to exterior.

asparagine (äspär'äjēn, -gīn) *n.* [Gk. *asparagos*, asparagus.] A compound, first detected in asparagus, formed from amino-acids in leguminous and other seeds, of importance in nitrogen metabolism of plants; $C_4H_8O_3N_2$.

aspect (äs'pēkt) *n.* [L. *aspicere*, to look toward.] Direction facing part of a surface; appearance or look; seasonal appearance.

aspection (äspëk'shün) *n.* [L. *aspicere*, to look toward.] Seasonal succession of phyto-logical and zoo-logical phenomena.

asperate (äs'përät) *a.* [L. *asperare*, to roughen.] Having a rough surface.

asperity (äspër'iti) *n.* [L. *asperitas*, roughness.] Roughness, as on a leaf.

asperulate (äspër'ülät) *a.* [Dim. of L. *asperare*, to roughen.] Minutely rough.

asplanchnic (äsplängk'ník) *a.* [Gk. *a*, without; *splangchna*, viscera.] Without alimentary canal.

asporocystid (äspör'ösis'tid) *a.* [Gk. *a*, not; *sporos*, seed; *kystis*, bladder; *idion*, dim.] *Appl.* oocyst of Sporozoa when zygote divides into sporozoites without sporocyst formation.

asporogenic (äs'pöröjën'ik) *a.* [Gk. *a*, without; *sporos*, seed; *gennaein*, to produce.] Not originating from spores.

asporogenous, — not producing spores.

asporous (äspör'üs) *a.* [Gk. *a*, without; *sporos*, seed.] Having no spores.

assimilation (äsm'ilä'shün) *n.* [L. *ad*, to; *similis*, like.] Conversion into protoplasm of ingested and digested nutrient material; anabolism.

association (äso'siä'shün) *n.* [L. *ad*, to; *socius*, fellow.] A plant community forming a division of a formation or larger unit of vegetation, as of tundra, grassland, forest, and characterised by dominant species; adherence of gregarines without fusion of nuclei; *appl.* fibres connecting white matter of interior of brain with cortex; *appl.* neurons with intersegmental axons.

associos (äso'siéz) *n.* [L. *ad*, to; *socius*, fellow.] An association representing a stage in the process of succession.

astacene (äs'täsën) *n.* [L. *astacus*, crayfish.] Carotenoid pigment of certain crustaceans, echinoderms, and fishes; astacin; $C_{40}H_{48}O_4$.

astaxanthin (äs'täzän'thin) *n.* [L. *astacus*, crayfish; Gk. *xanthos*,

yellow.] An animal carotenoid derived from ingested plant carotenoids, in chromoplasts of certain flagellates, also combining with proteins to form pigments, as of crustaceans; $C_{40}H_{52}O_4$.

astelic (ästä'lik) *a.* [Gk. *a*, without; *stela*, pillar.] Not possessing a stela.

astely (ästä'li) *n.* [Gk. *a*, without; *stela*, pillar.] Absence of a central cylinder, axis, or stela.

aster (äs'tër) *n.* [Gk. *aster*, star.] The star-shaped achromatic structure surrounding centrosome during mitosis; star-shaped arrangement of chromosomes during mitosis.

asterigmate (ästä'rig'mät) *a.* [Gk. *a*, without; *sterigma*, support.] Not borne on sterigmata; *appl.* spores.

asterion (ästä'riön) *n.* [Gk. *aster*, star.] The region of posterolateral fontanelle where lambdoid, parieto-mastoid, and occipito-mastoid sutures meet.

asteriscus (äs'tëris'küs) *n.* [Gk. *asteriskos*, dim. of *aster*, star.] A small otolith in rudimentary cochlea of teleosts.

asternal (ästä'ernal) *a.* [L. *a*, from; *sternum*, breastplate.] *Appl.* ribs whose ventral ends do not join the sternum directly.

asteroid (äs'tëroid) *a.* [Gk. *aster*, star; *eidos*, form.] Star-shaped; *pert.* star-fish.

asterospondylous (äs'tërospön'dilüs) *a.* [Gk. *aster*, star; *sphondylos*, vertebra.] Having centrum with radiating calcified cartilage; also asterospondylic.

asthenic (ästhën'ik) *a.* [Gk. *asthenes*, feeble.] Weak; tall and slender; leptosome.

asthenobiosis (äs'thënöbïö'sis) *n.* [Gk. *asthenes*, feeble; *biosis* manner of life.] Life during a phase of lessened metabolic activity.

astichous (äs'tiküs) *a.* [Gk. *a*, without; *stichos*, row.] Not set in a row or in rows.

astigmatic (ästäg'mätüs) *a.* [Gk. *a*, without; *stigma*, mark.] Without stigmata or spiracles.

astipulate,—exstipulate, *q.v.*

astogeny (ästöj'ëni) *n.* [Gk. *astos*, citizen; *genos*, descent.] The development of a colony by budding.

astomatous (ästö'mätüs) *a.* [Gk. *a*, without; *stoma*, mouth.] Not having a mouth; without epidermic pores or stomata.

astomous (äs'tömüs) *a.* [Gk. *a*, without; *stoma*, mouth.] Without a stomium or line of dehiscence; bursting irregularly.

astragalus (ästräg'älüs) *n.* [Gk. *astragalos*, ankle-bone.] The talus, second largest tarsal bone in man; a tarsal bone in vertebrates.

astroblast (äs'tröbläst) *n.* [Gk. *aster*, star; *blastos*, bud.] A cell giving rise to protoplasmic or to fibrillar astrocytes.

astrocentre (äs'trösën'tër) *n.* [L. *aster*, star; *centrum*, centre.] Centrosome.

astrocyte (äs'trösit) *n.* [Gk. *aster*, star; *kytos*, hollow.] A common neuroglia cell; astroglia; macroglia; Deiters' cell; a neuroglial cell with branching protoplasmic processes in grey matter; a fibrillar or spider cell in white matter.

astropodia (äs'tröpö'diä) *n. plu.* [Gk. *aster*, star; *pous*, foot.] Fine unbranched radiating pseudopodia, as in Heliozoa and some Radiolaria.

astropyle (äs'tröpil, -öp'ilē) *n.* [Gk. *aster*, star; *pyle*, gate.] Chief aperture of central capsule, in certain Radiolaria.

astrosclereid (äs'trösklē'rēid) *n.* [Gk. *aster*, star; *skleros*, hard; *eidos*, form.] A multiradiate sclereid or stone cell; a spiculate or ophiuroid cell.

astrosphere (äs'trösfēr) *n.* [Gk. *aster*, star; *sphaira*, ball.] Central mass of aster without rays; aster exclusive of centrosome; astral sphere.

asymmetrical (äsimët'rīkāl) *a.* [Gk. *asymmetros*, disproportionate.] *Pert.* want of symmetry; having two sides unlike or disproportionate; *appl.* structures or organs which cannot be divided into similar halves by any plane; asymmetric.

asynapsis (äsīnāp'sis) *n.* [Gk. *a*, not; *synapsis*, union.] Absence of pairing of chromosomes in meiosis; asyndesis.

asynethogametism (äs'inē'thögämē'tizm) *n.* [Gk. *a*, not; *synethes*, well suited; *gametes*, spouse.] Incapability of two apparently suitable gametes to unite, owing to presence of an inhibiting factor; gametal incompatibility; aethogametism. *Opp.* synethogametism.

atactostele (ätäk'töstē'lē) *n.* [Gk. *ataktos*, irregular; *stele*, post.] A complex stele having bundles scattered in the ground tissue, as in monocotyledons.

atavism (ät'avizm) *n.* [L. *atavus*, ancestor.] Reversion, occurrence of an ancestral characteristic not observed in more immediate progenitors.

atavistic (ät'avis'tik) *a.* [L. *atavus*, ancestor.] *Pert.*, marked by, or tending to atavism.

ateleosis (ätēlō'sis) *n.* [Gk. *ateles*, imperfect.] Dwarfism where individual is a miniature adult; *cf.* achondroplasia.

atelia (ätēl'fā) *n.* [Gk. *ateles*, ineffectual.] The apparent uselessness of a character of unknown biological significance; incomplete development.

atelomitic (ätēlōmīt'ik) *a.* [Gk. *a*, not; *telos*, end; *mitos*, thread.] *Appl.* other than terminal attachment of chromosome to spindle.

athalamous (äthāl'amüs) *a.* [Gk. *a*, without; *thalamos*, inner room.] Lacking a thalamus.

athrocyte (äth'rösit) *n.* [Gk. *athroos*, collective; *kytos*, hollow.] A large resorptive cell or paranephrocyte of nephridium in Bryozoa.

athrocytosis (äth'rösitō'sis) *n.* [Gk. *athroos*, collected; *kytos*, hollow.] The capacity of cells to selectively absorb and retain solid particles in suspension, as dyes.

atlanto-occipital,—occipito-atlantal, *q.v.*

atlas (ät'lās) *n.* [Gk. *Atlas*, a Titan.] The first cervical vertebra.

atokous (ät'ökūs) *a.* [Gk. *atokos*, childless.] Without offspring.

atoll (ät'öl, ätöl') *n.* [Mal. *atoll*.] A coral reef surrounding a central lagoon.

atopy (ät'öpī) *n.* [Gk. *atopia*, unusual nature.] Idiosyncrasy, genetic sensitivity to poisonous effects of particular antigens or atopens, as of certain proteins, pollen, etc.

atractoid (ät'räktoid) *a.* [Gk. *atraktos*, spindle; *eidōs*, form.] Spindle-shaped; fusiform.

atretic (ätrē'tik) *a.* [Gk. *a*, not; *•tretos*, perforated.] Having no opening; imperforate; *appl.* vesicles resulting from degeneration of Graafian follicles, spurious corpora lutea.

atrial (ä'triäl) *a.* [L. *atrium*, central room.] *Pert.* atrium; *appl.* cavity, pore, canal, siphon, lobes.

atrichic (ätrik'ik) *a.* [Gk. *a*, not, *thrix*, hair.] Having no flagella; atrichous, aflagellar.

atriocoelomic (ä'triösēlōm'ik) *a.* [L. *atrium*, central room; Gk. *kōiloma*, a hollow.] Connecting atrium and coelom; *appl.* funnels, of uncertain function, in Cephalochorda.

atriopore (ä'triöpōr) *n.* [L. *atrium*, central room; *porus*, channel.] The opening from atrial cavity to exterior in Cephalochorda; spiracle in tadpole.

atrioventricular (ä'triöväntrik'ülär) *a.* [L. *atrium*, chamber; *ventriculus*, small cavity.] *Pert.* atrium and ventricle of heart; *appl.* bundle, groove, node, openings.

atrium (ä'triüm) *n.* [L. *atrium*, chamber.] Anterior cavity of heart; tympanic cavity; a division of the vestibule at end of bronchiole;

chamber surrounding pharynx in Tunicata and Cephalochorda.

atrochal (ät'rökäl) *a.* [Gk. *a*, without; *trochos*, wheel.] Without preoral circlet of cilia; *appl.* trochophore when preoral circlet is absent and surface is uniformly ciliated.

atropal,—atropous.

atrophy (ät'röfi) *n.* [Gk. *a*, without; *trophe*, nourishment.] Emaciation; diminution in size and function.

atropous (ät'röpūs) *a.* [Gk. *a*, without; *trope*, turn.] *Appl.* ovule in proper position, *i.e.* not inverted.

attachment, the spindle attachment; a lasting fusion of two chromosomes.

attenuated (ätēn'üätēd) *a.* [L. *attenuare*, to thin.] Thinned; reduced in density, strength, or pathogenic activity.

atterminal (ättēr'minäl) *a.* [L. *ad*, to; *terminus*, end.] Towards a terminal; *appl.* current directed toward thermal cross-section.

attic (ät'ik) *n.* [Gk. *attikos*, Athenian.] The epitympanic recess.

attraction-particle,—centriole.

attraction - sphere,—centrosphere.

auditory (öd'itōrī) *a.* [L. *audire*, to hear.] *Pert.* hearing apparatus, *appl.* organ, nucleus, ossicle, capsule, canal, meatus, nerve, vesicle, etc.; *pert.* sense of hearing.

auditory teeth,—of Huschke, projections on upper part of limbus of osseous spiral lamina of cochlea.

Auerbach's plexus [L. *Auerbach*, German anatomist]. A gangliated plexus of non-medullated nerve-fibres, found between the circular and longitudinal layers of muscular coat of small intestine; plexus myentericus.

augmentation (ögmēntā'shūn) *n.* [L. *augere*, to increase.] Increase in number of whorls; *cf.* choris.

augmentor (ögmēn'tör) *a.* [L. *augere*, to increase.] *Appl.* nerves rising from sympathetic system and acting on heart, with antagonistic relation to vagi; accelerator.

aulophyte (öl'öfit) *n.* [Gk. *aulon*, hollow way; *phyton*, plant.] A non-parasitic plant growing in hollow of another.

aulostomatous (ôl'östôm'âtūs) *a.* [Gk. *aulos*, tube; *stoma*, mouth.] Having a tubular mouth or snout.

aural (ôr'âl) *a.* [L. *auris*, ear.] *Pert.* ear or hearing.

auricle (ôr'ikl) *n.* [L. *auricula*, small ear.] Any ear-like lobed appendage; the external ear; atrium or anterior chamber of heart; lateral chemical receptor in Turbellaria; lateral outgrowth on second abdominal tergum in Anisoptera.

auricula (ôr'ik'ulā) *n.* [L. *auricula*, small ear.] An auricle.

auricular (ôr'ik'ulār) *n.* [L. *auricula*, small ear.] Ear covert of birds. *a. Pert.* an auricle; *appl.* artery, nerve, tubercle, vein.

auricularia (ôr'ik'ulār'iā) *n.* [L. *auricula*, small ear.] A type of larva found among Holothuria.

auricularis (ôr'ikulār'is) *n.* [L. *auricula*, small ear.] Superior, anterior, posterior, extrinsic muscles of the external ear.

auriculate (ôr'ik'ulāt) *a.* [L. *auricula*, small ear.] Eared; *appl.* leaf with expanded bases surrounding stem; *appl.* leaf with lobes separate from rest of blade; hastate-auricled.

auriculo-ventricular,—*pert.* or connecting auricle and ventricle of heart; *appl.* bundle, valve.

auriform (ôr'rîfôrm) *a.* [L. *auris*, ear; *forma*, shape.] Resembling the external ear in shape, as shell of Haliotis.

aurophore (ôr'ôfôr) *n.* [L. *auris*, ear; Gk. *phereîn*, to bear.] An organ projecting from base of pneumatophore of certain Siphonophora.

austral (ôs'trāl) *a.* [L. *australis*, southern.] *Appl.* or *pert.* southern biogeographical region, or restricted to North America between transitional and tropical zones.

Australian (ôstrā'liän) *a.* [L. *australis*, southern.] *Appl.* or *pert.* a zoogeographical region including Papua, Australia, New Zealand, and Pacific islands.

Austro-Columbian, — Neotropical, *q.v.*

autacoid (ôt'ākoid) *n.* [Gk. *autos*, self; *akos*, remedy; *eidos*, form.] Internal secretion, a hormone or a chalone.

autarticular (ôt'ärtik'ulār) *n.* [Gk. *autos*, self; L. *articulus*, joint.] Goniale, *q.v.*

autecology (ôt'ëköl'ôji) *n.* [Gk. *autos*, self; *oikos*, household; *logos*, discourse.] The biological relations between a single species and its environment; ecology of an individual organism; auto-ecology.

autoantibiosis (ôt'ân'tibîô'sîs) *n.* [Gk. *autos*, self; *anti*, against; *biosis*, a living.] Retardation or inhibition of growth in a medium made stale by the same organism.

autobasidium (ôt'ôbäsîd'ium) *n.* [Gk. *autos*, self; *basis*, base; *idion*, *dim.*] A basidium having sterigmata bearing spores laterally, *opp.* apobasidium; a non-septate basidium or holobasidium.

autobiology,—idiobiology, *q.v.*

autoblast (ôt'ôbläst) *n.* [Gk. *autos*, self; *blastos*, bud.] An independent micro-organism or cell.

autocarp (ôt'ôkârp) *n.* [Gk. *autos*, self; *karpos*, fruit.] Fruit resulting from self-fertilisation.

autocatalysis (ôt'ökätäl'îsîs) *n.* [Gk. *autos*, self; *kata*, down; *lysis*, loosening.] Dissolution or reaction of a cell or substance due to influence of a product or secretion of its own.

autochthon (ôt'ôkthôn) *n.* [Gk. *autochthon*, aborigine.] An indigenous species.

autochthonous (ôt'ôkthônūs) *a.* [Gk. *autos*, self; *chthon*, ground.] Aboriginal; indigenous; inherited or hereditary, native, *appl.* characteristics; originating within an organ, as pulsation of excised heart; formed where found. *Opp.* allochthonous.

autocoid,—autacoid, *q.v.*

autocyst (ôt'ôsîst) *n.* [Gk. *autos*, self; *kystis*, bladder.] A thick membrane formed by Neosporidia separating them from host tissues.

autodermalia (ôt'ôdërmā'liā) *n. plu.* [Gk. *autos*, self; *derma*, skin.] Dermal spicules with axial cross, within dermal membrane.

autodont (ôt'ôdônt) *a.* [Gk. *autos*, self; *odous*, tooth.] Designating or *pert.* teeth not directly attached to jaws, as in cartilaginous fishes.

autococious (ôtê'siūs) *a.* [Gk. *autos*, self; *oikos*, house.] Passing different stages of life-history in the same host; *appl.* parasitic fungi; autoxenous.

autogamous (ôtôg'âmūs) *a.* [Gk. *autos*, self; *gamos*, marriage.] Self-fertilising, *opp.* allogamous.

autogamy (ôtôg'âmī) *n.* [Gk. *autos*, self; *gamos*, marriage.] Self-fertilisation, *opp.* allogamy; conjugation of nuclei within a single cell; conjugation of two protozoa originating from division of the same individual.

autogenesis (ôt'ôjên'esīs) *n.* [Gk. *autos*, self; *genesis*, birth.] Spontaneous generation; autogeny, autogony.

autogenetic (ôt'ôjênēt'ik) *a.* [Gk. *autos*, self; *genesis*, birth.] Reproducing spontaneously, as body-cells.

autogenic (ôtôjên'ik) *a.* [Gk. *autos*, self; *gennaein*, to produce.] Caused by reactions of organisms themselves; *appl.* plant successions, *opp.* allogenic; autonomic or spontaneous, *appl.* movements.

autogenous (ôtôj'ênūs) *a.* [Gk. *autos*, self; *-genes*, produced.] Produced in the same organism; *appl.* enzymes; *appl.* graft reimplanted in same animal; *appl.* vaccine injected into same animal; *appl.* variations due to changes within chromosomes.

autogony (ôtôg'ôni) *n.* [Gk. *autos*, self; *gonos*, offspring.] Autogenesis, *q.v.*

autoheteroploid (ô'tôhêt'êrôploid) *n.* [Gk. *autos*, self; *heteros*, other; *aploos*, onefold; *eidos*, form.] Heteroploid derived from a single genome or multiplication of some of its chromosomes.

autoinfection (ôt'ôinfêk'shūn) *n.* [Gk. *autos*, self; *L. inficere*, to taint.] Reinfection from host's own parasites.

autointoxication (ôt'ôintôk'sikā-shūn) *n.* [Gk. *autos*, self; *L. in*, in; Gk. *toxikon*, poison.] Reabsorption of toxic substances produced by the body.

autolysis (ôtôl'isīs) *n.* [Gk. *autos*, self; *lysis*, loosing.] Self-digestion; cell or tissue disintegration by action of autogenous enzymes.

autolytic (ôt'ôlit'ik) *a.* [Gk. *autos*, self; *lysis*, loosing.] Causing or *pert.* autolysis; *appl.* enzymes.

automixis (ôt'ômlk'sis) *n.* [Gk. *autos*, self; *mixis*, mingling.] The union, in a cell, of chromatin derived from common parentage; self-fertilisation.

autonarcosis (ôt'ônârkô'sis) *n.* [Gk. *autos*, self; *narke*, numbness.] State of being poisoned, rendered dormant, or arrested in growth, owing to self-produced carbon dioxide.

autonomic (ôt'ônôm'ik) *a.* [Gk. *autos*, self; *nomos*, law.] Autonomus; self-governing, spontaneous; *appl.* the involuntary nervous system as a whole, comprising parasympathetic and sympathetic systems; induced by internal stimuli, as movements of development, growth, unfolding, etc., *opp.* paratonic; internal, *appl.* environment, *opp.* chromonic.

autopalatine (ôt'ôpāl'âtin) *n.* [Gk. *autos*, self; *L. palatum*, palate.] In a few teleosts, an ossification at anterior end of pterygoquadrate.

autoparasite (ô'tôpâr'āsīt) *n.* [Gk. *autos*, self; *parasitos*, one who subsists on another.] A parasite growing on another parasite.

autoparthenogenesis (ôt'ôpâr'-thênôjên'esīs) *n.* [Gk. *autos*, self; *parthenos*, virgin; *genesis*, descent.] Development from unfertilised eggs activated by a chemical or physical stimulus.

autophagous (ôtôf'ägūs) *a.* [Gk. *autos*, self; *phagein*, to eat.] *Appl.* birds capable of running about and securing food for themselves when newly hatched.

autophagy (ôtôf'ājī) *n.* [Gk. *autos*, self; *phagein*, to eat.] Subsistence by self-absorption of products of metabolism, as consumption of their own glycogen by yeasts.

autophilous (ôtôf'ilūs) *a.* [Gk. *autos*, self; *philein*, to love.] Self-pollinating; autogamous.

autophya (ôt'ôfi'ā) *n. plu.* [Gk. *autos*, self; *phyein*, to produce.] Elements in formation of shell secreted by animal itself; *cf.* xenophya.

autophyllogeny (ôt'ôfilôj'ënt) *n.* [Gk. *autos*, self; *phyllon*, leaf; *genos*, birth.] Growth of one leaf upon or out of another.

autophyte (ôt'ôfit) *n.* [Gk. *autos*, self; *phyton*, plant.] A self-nourished plant; plant nourished directly by inorganic matter; *cf.* saprophyte.

autophytic (ôtôfit'ik) *a.* [Gk. *autos*, self; *phyton*, plant.] Autotrophic, *q.v.*; *pert.* autophytes.

autoplasma (ôt'ôplāz'mā) *n.* [Gk. *autos*, self; *plasma*, mould.] Plasma from same animal used as medium for tissue culture; *cf.* homoplasma, heteroplasma.

autoplast,—chloroplast.

autoplastic (ôt'ôplās'tik) *a.* [Gk. *autos*, self; *plastos*, formed.] *Appl.* graft to another position in the same individual.

autopodium (ôt'ôpô'diūm) *n.* [Gk. *autos*, self; *pous*, foot.] The hand or foot.

autopolyploid (ôt'tôpôl'iploid) *n.* [Gk. *autos*, self; *polys*, many; *aploos*, onefold; *eidos*, form.] An organism having more than two sets of homologous chromosomes.

autopotamic (ôt'tôpôtām'ik) *a.* [Gk. *autos*, self; *potamos*, river.] Thriving in a stream, not in its backwaters; *appl.* potamoplankton.

autoradiography (ôt'tôrādîôg'rāfi) *n.* [Gk. *autos*, self; L. *radius*, ray; Gk. *graphein*, to write.] Method of demonstrating the presence of specific chemical substances by first making them radioactive, then

recording on a photographic film their distribution in the body, organs, or tissues.

autoskeleton (ôt'ôskêl'ëtôn) *n.* [Gk. *autos*, self; *skeletos*, dried.] A true skeleton formed within the animal.

autosome (ôt'ôsôm) *n.* [Gk. *autos*, self; *soma*, body.] A typical chromosome, or euchromosome, *opp.* sex-chromosome; *cf.* allosome.

autospasy (ôtôs'pāsī) *n.* [Gk. *autos*, self; *spao*, to pluck off.] Self-amputation; autotilly, autotomy.

autospore (ôt'tôspôr) *n.* [Gk. *autos*, self; *sporos*, seed.] An aplano-spore which resembles the parent cell.

autostoses (ôt'ôstô'sēz) *n. plu.* [Gk. *autos*, self; *osteon*, bone.] Bones formed in cartilage; *cf.* allostoses.

autostylic (ôt'ôstil'ik) *a.* [Gk. *autos*, self; *stylos*, pillar.] With mandibular arch self-supporting, articulating directly with skull; *cf.* hyostylic.

autosynapsis (ôt'tôsīnāp'sis) *n.* [Gk. *autos*, self; *synapsis*, union.] Autosyndesis.

autosyndesis (ôt'tôsīn'dēsīs) *n.* [Gk. *autos*, self; *syndesis*, a binding together.] Pairing of chromosomes from the same parent, in a polyploid or allopolyploid; pairing of homogenetic chromosomes; *cf.* allosyndesis.

autotheca (ôt'ôthē'kā) *n.* [Gk. *autos*, self; *theke*, case.] A theca budded from a stolothea, and surrounding the female polyp in graptolites.

autotilly (ôt'tôtil'ī) *n.* [Gk. *autos*, self; *tillēthai*, to pluck.] Autotomy, as in certain spiders.

autotomy (ôtôt'ômi) *n.* [Gk. *autos*, self; *tome*, cutting.] Self-amputation of a part, as in certain worms, arthropods, and lizards.

autotransplantation,—transplantation of tissue or organ to another part of same organism; *cf.* homoio-transplantation.

autotrophic (ôt'ôtrôf'ik) *a.* [Gk. *autos*, self; *trephein*, to nourish.] Procuring food independently; *appl.* plants which form carbohydrates and proteins from carbon dioxide and inorganic compounds; neither saprophytic nor parasitic; autophytic. *Opp.* heterotrophic.

autotropism (ôtôt'rôpizm) *n.* [Gk. *autos*, self; *tropê*, turn.] Tendency to grow in a straight line; *appl.* plants unaffected by external influence; tendency of organs to resume original form, after bending or straightening due to external factors; rectipetality.

autoxenus (ôtôk'sênûs, ôt'ôrên'ûs) *a.* [Gk. *autos*, self; *xenos*, host.] Parasitic on the same host at different stages in life-history; autoecious.

autozoid (ôt'ôzô'oid) *n.* [Gk. *autos*, self; *zoon*, animal; *eidos*, form.] An independent alcyonarian zoid or individual.

auxenolonic acid,—auxin B, *q.v.*

auxentriolic acid,—auxin A, *q.v.*

auxesis (ôksê'sis) *n.* [Gk. *auxesis*, growth.] Growth; increase in size owing to increase in cell size; induction of cell division; *cf.* merisis.

auxetic (ôksêt'ik) *n.* [Gk. *auxein*, to increase.] Any agent which induces cell-division. *a.* Stimulating cell proliferation.

auxilia (ôgzil'yă) *n. plu.* [L. *auxilium*, assistance.] Two small sclerites between unguitractor and claws, in insects.

auxiliary cells,—two or more cells adjoining guard cells, or surrounding stomata; accessory or subsidiary cells.

auximone (ôk'simôn) *n.* [Gk. *auximos*, promoting growth.] An accessory growth-stimulating factor in food of plants.

auxins (ôk'sinz) *n. plu.* [Gk. *auxein*, to increase.] Growth-regulating hormones of plants; auxin A isolated from growing tips of oat seedlings and human urine, $C_{18}H_{32}O_5$; auxin B, from vegetable

sources and urine, accelerates mycelium growth, $C_{18}H_{30}O_4$; heteroauxin (*q.v.*), and a number of other substances.

auxocyte (ôks'ôsīt) *n.* [Gk. *auxein*, to increase; *kytos*, hollow.] Androcyte, sporocyte, oocyte, or spermatocyte at growth period.

auxospireme (ôks'ôspi'rēm) *n.* [Gk. *auxein*, to increase; *speirema*, coil.] Spireme formed after syndesis.

auxospore (ôk'sôspôr) *n.* [Gk. *auxein*, to increase; *sporos*, seed.] Zygote of diatoms, formed by union of two individuals at limit of decrease in size.

auxotonic (ôk'sôtôn'ik) *a.* [Gk. *auxein*, to increase; *tonos*, strain.] Induced by growth; *appl.* movements of immature plants; *opp.* allasotonic; *appl.* contraction against an increasing resistance.

auxotroph (ôk'sôtrôf) *n.* [Gk. *auxein*, to increase; *trophe*, nourishment.] A mutant lacking the capacity of forming an enzyme present in the parental strain, and therefore requiring a supplementary substance for growth.

avicularium (ăvikulă'rîŭm) *n.* [L. *avicula*, *dim.* of *avis*, bird.] In Polyzoa, a modified zoocodium with muscular movable attachments resembling a bird's beak.

avifauna (ăv'ifô'nă) *n.* [L. *avis*, bird; *I'avnus*, rural deity.] All the bird species or birds of a region or period; ornith.

avitaminosis (ăvī'tăminô'sis) *n.* [L. *a*, from; *vita*, life; *ammoniacum*, resinous gum.] A condition or disease resulting from vitamin-deficiency.

awn (ôn) *n.* [Icel. *ögn*, chaff.] The 'beard' of grasses; point of leaf, in certain Lycopsidea.

axenic (ăksên'ik) *a.* [Gk. *axenos*, inhospitable.] Without, or deprived of, any commensals, symbionts, or parasites; not contaminated, *appl.* cultures.

axial (ăk'slăl) *a.* [L. *axis*, axle.] *Pert.* axis or stem.

axial filament,—central filament, as of a stiff radiating pseudopodium or of a flagellum.

axial sinus,—a nearly vertical canal in echinoderms, opening into internal division of oral ring sinus, and communicating with stone canal.

axial skeleton,—skeleton of head and trunk, *opp.* appendicular skeleton.

axiate pattern,—arrangement of parts with reference to a definite axis.

axil (āk'sil) *n.* [L. *axilla*, arm-pit.] The angle between leaf or branch and axis from which it springs.

axile [āk'sil] *a.* [L. *axis*, axle.] *Pert.*, situated in, or belonging to the axis; *appl.* placentation, free central, *q.v.*

axilemma (āk'silēm'ā) *n.* [L. *axis*, axle; Gk. *lemma*, husk.] In medullated nerve fibres, the sheath surrounding axial cylinder.

axilla (āksil'ā, āk'silā) *n.* [L. *axilla*, arm-pit.] The arm-pit; an axil.

axillary (āk'silārī, āksil'ārī) *a.* [L. *axilla*, arm-pit.] *Pert.* axil; growing in axil, as buds; *pert.* arm-pit; *appl.* seventh longitudinal or anal vein of insect wing. *n.* One of the pteralia, *q.v.*

axinost,—axonost, *q.v.*

axipetal (āksilp'ētāl) *a.* [L. *axis*, axle; *petere*, to seek.] Passing towards attachment of axon, *appl.* nerve impulses.

axis (āk'sis) *n.* [L. *axis*, axle.] The main stem or central cylinder; the fundamentally central line of a structure; rachis of trilobites; structure at base of insect wing; the second cervical vertebra.

axis cylinder,—the central tract of a nerve fibre, the impulse transmitter; axon and its myelin sheath.

axodendritic (āk'södēndrit'ik) *a.* [Gk. *axon*, axle; *dendron*, tree.] *Appl.* synapse in which end-brush of axon is in contact with dendritic processes.

axon (āk'sōn) *n.* [Gk. *axon*, axle.] The axis-cylinder process of a nerve-cell normally transmitting

excitations from its cell body; axone, neuraxon, neurite.

axon hill or hillock,—the area of a nerve cell from which the axon arises; cone of origin.

axoneme (āk'sōnēm) *n.* [Gk. *axon*, axle; *nema*, thread.] A thread of strand forming infusorian stalk; an axostyle; the axial filament of a flagellum; axial thread or genome of a chromosome.

axonost (āk'sōnōst) *n.* [Gk. *axon*, axle; *osteon*, bone.] The basal portion of rods supporting dermotrichia of fin-rays; axinost; inter-spinal.

axoplasm (āk'sōplāzm) *n.* [Gk. *axon*, axle; *plasma*, form.] Plasma surrounding the neurofibrils within the axis cylinder; perifibrillar substance.

axoplast (āk'sōplāst) *n.* [Gk. *axon*, axle; *plastos*, formed.] A filament extending from kinetoplast to end of body in some trypanosomes.

axopodium (āk'sōpō'diūm) *n.* [Gk. *axon*, axle; *pous*, foot.] A pseudopodium with axial filament.

axosomatic (āk'sōsōmāt'ik) *a.* [Gk. *axon*, axle; *soma*, body.] *Appl.* synapse in which end-brush of axon terminates about nerve-cell body.

axospermous (āk'sōspēr'mūs) *a.* [Gk. *axon*, axle; *sperma*, seed.] With axile placentation.

axostyle (āk'sōstil) *n.* [Gk. *axon*, axle; *stylos*, pillar.] A slender flexible rod of organic substance forming a supporting axis for the body of many Flagellata.

azoic (āzō'ik) *a.* [Gk. *a*, without; *zoikos*, *pert.* life.] Uninhabited; without remains of organisms or of their products; *appl.* Pre-Cambrian era or rocks.

azonal (āzō'nal) *a.* [Gk. *a*, without; *zone*, girdle.] Not zoned; *appl.* soils without definite horizons.

azonic,—not restricted to a zone.

azurophil (āzū'rōfil, āzh'ūrōfil) *a.* [F. *azur*, from Ar. *al azurd*, lapis lazuli; Gk. *philein*, to love.] Staining readily with blue aniline dyes.

azygobranchiate (áz'igöbräng'kiât) *a.* [Gk. *a*, without; *zygon*, yoke; *branchia*, gills.] Having gills or ctenidia not developed on one side.

azygoid (áz'igoid) *a.* [Gk. *a*, without; *zygon*, yoke; *eidos*, form.] Not zygoid; haploid; *appl.* parthenogenesis.

azygomatous (áz'igöm'ätüs) *a.* [Gk. *a*, without; *zygoma*, a bar.] Without a zygora or cheek-bone arch.

azygomelous (áz'igömél'üs, *a.* [Gk. *a*, without; *zygon*, yoke; *melos*, limb.] Having unpaired appendages; *appl.* fin of Acrania and Cyclostomata.

azygos (áz'igös) *n.* [Gk. *a*, without; *zygon*, yoke.] An unpaired muscle, artery, vein, process.

azygosperm,—azygospore.

azygospore (áz'igösör) *n.* [Gk. *a*, without; *zygon*, yoke; *sporos*, seed.] A spore developed directly from a gamete without conjugation; parthenospore.

azygote (áz'igöt) *n.* [Gk. *a*, without; *zygon*, yoke.] An organism resulting from haploid parthenogenesis.

azygous (áz'igüs) *a.* [Gk. *a*, without; *zygon*, yoke.] Unpaired.

azymic (äzi'mik) *a.* [Gk. *a*, without; *zyme*, leaven.] Not fermented; devoid of enzymes; not resulting from fermentation.

B

Babes-Ernst bodies [*V. Babes*, Romanian bacteriologist; *H. C. Ernst*, American bacteriologist]. Metachromatic or volutin granules, in bacteria.

bacca (bäk'ä) *n.* [L. *bacca*, berry.] A pulpy fruit; berry.

baccate (bäk'ät) *a.* [L. *bacca*, berry.] Pulpy, fleshy; berried.

bacciferous (bäksif'erüs) *a.* [L. *bacca*, berry; *ferre*, to bear.] Berry-producing, or -bearing.

bacciform (bäk'siförm) *a.* [L. *bacca*, berry; *forma*, shape.] Berry-shaped.

bacillary (bäsil'äri) *a.* [L. *bacillum*, small staff.] Rod-like; *appl.* layer of rods and cones of retina; *pert.* bacilli.

bacillus (bäsil'üs) *n.* [L. *bacillum*, small staff.] A rod-like bacterium; a single-celled fungus.

back-cross,—to mate a cross or hybrid to a member of one of the parental stocks; a resulting hybrid.

back mutation,—reversion of a mutant gene to its original state; reverse mutation.

bactericidin (bäk'tëris'din) *n.* [Gk. *bakterion*, small rod; L. *caedere*, to kill.] A substance that kills bacteria without causing lysis.

bacteriochlorin (bäktë'riöklö'rin) *n.* [Gk. *bakterion*, small rod; *chloros*, green.] Green pigment, related to chlorophyll, in sulphur bacteria.

bacteriochlorophyll (bäktë'riöklö'röfil) *n.* [Gk. *bakterion*, small rod; *chloros*, green; *phyllon*, leaf.] A photosynthetic pigment of bacteria, from which chlorophyll-*a* may be derived; bacteriochlorin.

bacteriology (bäk'tëriöl'öji) *n.* [Gk. *bakterion*, small rod; *logos*, discourse.] The science dealing with bacteria.

bacteriolysin (bäktë'riöli'sin) *n.* [Gk. *bakterion*, small rod; *lysis*, loosing.] A substance which causes dissolution of bacteria.

bacteriolysis (bäk'tëriöl'isis) *n.* [Gk. *bakterion*, small rod; *lysis*, loosing.] The disintegration and dissolution of bacteria.

bacteriophage (bäktë'riöfä') *n.* [Gk. *bakterion*, small rod; *phagein*, to devour.] A destroyer of bacteria; a bacteriolytic agent; phage.

bacteriopurpurin (bäktë'riöpür-pürin) *n.* [Gk. *bakterion*, small rod; L. *purpura*, purple.] A complex of photosynthetic pigments causing the red, purple, or violet appearance of certain bacteria.

bacteriostatic (bäktë'riöstät'ik) *a.* [Gk. *bakterion*, small rod; *statikos*, causing to stand.] Inhibiting development of bacteria.

bacteriotropin (bāk'tērĭō'trōpĭn) *n.*

[Gk. *bakterion*, small rod; *trope*, turn.] An ingredient of blood serum which renders bacteria more readily phagocytatable; opsonin.

bacteroid (bāk'tēroid) *n.* [Gk. *bakterion*, small rod; *eidos*, form.] An irregular form of certain bacteria.

baculiform (bāk'ūlĭfōrm) *a.* [L. *baculum*, rod; *forma*, shape.] Rod-shaped; *appl.* chromosomes; *appl.* ascospores.

baculum (bāk'ūlŭm) *n.* [L. *baculum*, rod.] The penis bone; os priapi.

bailer,—scaphognathite.

Baillarger's line [*J. F. G. Baillarger*, French neurologist]. Outer and inner layer of white fibres parallel to surface of cerebral cortex.

balanced lethals,—heterozygotes in which different lethal genes are in such close proximity on a pair of homologous chromosomes that there is usually no crossing-over.

balancers (bāl'ānsērz) *n. plu.* [L. *bilanx*, having two scales.] Halteres or poisers of Diptera; paired larval head appendages functioning as props until forelegs are developed in certain salamanders.

balanic (bālān'ĭk) *a.* [Gk. *balanos*, acorn.] *Pert.* glans penis; *pert.* glans clitoridis.

balanoid (bāl'ānoid) *a.* [Gk. *balanos*, acorn; *eidos*, like.] Acorn-shaped; *pert.* barnacles.

balanus (bāl'ānŭs) *n.* [L. *balanus*, acorn.] Glans penis; a genus of barnacles.

balausta (bālōs'tā) *n.* [Gk. *balaustion*, blossom.] A many-celled, many-seeded, indehiscent fruit with tough pericarp; fruit of pomegranate.

baleen (bālĕn') *n.* [L. *balaena*, whale.] Horny plates attached to upper jaw of true whales; whale-bone.

baler,—scaphognathite.

ballast (bāl'āst) *n.* [Sw. *barlast*.] *Appl.* elements present in plants and which are not apparently essential for growth, *e.g.*, Al, Si.

ballistic (bālĭs'tĭk) *a.* [Gk. *ballein*, to

throw.] *Appl.* fruits with explosive dehiscence and discharge of seeds.

ballistospores (bālĭs'tōspōrz) *n. plu.*

[Gk. *ballein*, to throw; *sporos*, seed.] Asexual spores, formed on sterigmata and suddenly discharged with excretion of droplet, as in *Sporobolomycetes*; ballospores.

balsamiferous (bāl'sāmĭf'ērŭs) *a.* [L. *balsamum*, balsam; *ferre*, to bear.] Producing balsam.

banner,—the vexillum or upper petal in Papilionaceae; a muscle banner, *q.v.*, of Anthozoa.

bar of Sanio,—crassula, *q.v.*

baraesthesia (bār'ēsthĕ'ziā) *n.* [Gk. *baros*, weight; *aisthesis*, sensation.] The sensation of pressure.

barb (bārĭb) *n.* [L. *barba*, beard.] One of delicate thread-like structures extending obliquely from a feather rachis, and forming the vane; a hooked hair-like bristle.

barbate (bār'bāt) *a.* [L. *barbatus*, bearded.] Bearded; having hair tufts.

barbel (bār'bĕl) *n.* [L.L. *barbellus*, barbel.] A tactile process arising from the head of various fishes.

barbellate (bār'bĕl'āt, bār'bĕlāt) *a.* [L. *barba*, beard.] With stiff hooked hair-like bristles; *appl.* pappus.

barbichel (bār'bĭsĕl) *n.* [L. *barba*, beard.] Small process on a feather barbule.

barbula (bār'bŭlā) *n.* [L. *barbula*, *dim.* of *barba*, beard.] Row of teeth in peristome of certain mosses.

barbule (bār'bŭl) *n.* [L. *barbula*, *dim.* of *barba*, beard.] One of small hooked processes fringing barbs of feather; appendage of lower jaw in some teleosts.

baresthesia,—baraesthesia.

bark (bārĭk) *n.* [Dan. *bark*.] The tissues external to the vascular cambium, collectively; phloem, cortex, and periderm; outer dead tissues and cork.

baroreceptor (bār'ōsĕp'tōr) *n.* [Gk. *baros*, pressure; L. *capere*, to take.] A receptor in wall of blood-vessels and reacting to changes in blood pressure; baroreceptor.

barotaxis (bārōtāk'sis) *n.* [Gk. *baros*, weight; *taxis*, arrangement.] The reaction to a pressure stimulus.

barrage (bārāzh) *n.* [F. *barrage*, dam.] Zone of inhibition between certain bacterial or fungal colonies, not between others; aversion zone.

Bartholin's duct [C. *Bartholin*, jr., Danish anatomist]. The larger duct of the sublingual gland.

Bartholin's glands,—the greater vestibular glands on each side of vagina, homologues of male bulbourethral glands.

baryaesthesia,—baroaesthesia.

basad (bā'sād) *a.* [L. *basis*, base; *ad*, to.] Towards the base.

basal (bā'sāl) *a.* [L. *basis*, base.] *Pert.*, at, or near the base.

basal bone,—os basale, basale, *q.v.*

basal cell,—uninucleate cell which supports the dome and tip cells of a hyphal crosier; stalk cell.

basal ganglia,—ganglia connecting cerebrum with other centres.

basal granule,—a thickening, or body, at base of a flagellum in certain protozoa.

basal knobs,—swellings or granules at points of emergence of cilia in ciliated epithelial cells.

basal leaf,—one of the leaves produced near base of stem; a radical leaf.

basal metabolic rate,—rate of metabolism of a resting organism, expressed as percentage of normal heat production per hour per square metre surface area.

basal metabolism,—standard metabolism, tissue activity or physicochemical changes of a resting organism.

basal placenta,—arises from proximal end of ovary.

basal plates,—certain plates in echinoderms, situated at or near top of stalk in crinoids, in echinoids forming part of apical disc; fused parachordal plates in skull development; of placenta, outer wall of intervillous space.

basal wall,—the first plane of division of oospores of ferns and mosses.

basalar (bāsā'lār) *a.* [L. *basis*, base; *ala*, wing.] *Appl.* sclerites below wing base in insects.

basale (bāsā'lē) *n.* [L. *basis*, base.] A bone of variable structure arising from fusion of pterygiophores and supporting fish fins; os basale, the fused basioccipital and parasphenoid in Gymnophiona.

basement membrane,—a membrane of modified connective tissue beneath epithelial tissue, as of a gland containing acini or special secreting portions.

baseost (bā'sööst) *n.* [Gk. *basis*, base; *osteon*, bone.] Distal element of pterygiophore of teleosts.

basialveolar (bā'siäl'veölär) *a.* [L. *basis*, base; *alveolus*, small pit.] Extending from basion to centre of alveolar arch.

basibranchial (bā'sibräng'kiäl) *n.* [Gk. *basis*, base; *branchia*, gills.] Median ventral or basal skeletal portion of branchial arch.

basic (bā'sik) *a.* [Gk. *basis*, base.] *Appl.* stains which act in general on nuclear contents of cell; *cf.* acidic; *appl.* number, the minimum haploid chromosome number occurring in a series of euploid species of a genus; chromosome number in gametes of diploid ancestor of a polyploid organism.

basichromatin (bā'sikrō'mätin) *n.* [Gk. *basis*, base; *chroma*, colour.] The deeply staining substance of nuclear network; chromatin.

basiconic (bā'sikōn'ik) *a.* [Gk. *basis*, base; *konos*, cone.] Having, or consisting of, a conical process above general surface; *appl.* sensillae.

basicoxite (bā'sikōks'it) *n.* [L. *basis*, base; *coxa*, hip.] Basal ring of coxa.

basicranial (bā'sikrā'nīäl) *a.* [Gk. *basis*, base; *kranion*, skull.] Situated at or relating to base of skull.

basidia,—*plu.* of basidium.

basidial (bäsīd'iäl) *a.* [Gk. *basis*, base; *idion*, *dim.*] *Pert.* basidia or a basidium.

basidiocarp (bāsīd'īōkārp) *n.* [Gk. *basis*, base; *idion*, *dim.*; *karpos*, fruit.] The fruit-body of Basidiomycetes.

basidiolum (bāsīd'īōlūm) *n.* [L.L. *dim.* of Gk. *basidion*, small pedestal.] An undeveloped basidium; a pseudoparaphysis; formerly: paraphysis.

basidiophore (bāsīd'īōfōr) *n.* [Gk. *basis*, base; *idion*, *dim.*; *pherein*, to bear.] A sporophore which carries basidia.

basidiospore (bāsīd'īōspōr) *n.* [Gk. *basis*, base; *idion*, *dim.*; *sporos*, seed.] A spore or gonidium abstracted from a basidium; a secondary conidium; a basidio-gonidium.

basidium (bāsīd'īūm) *n.* [Gk. *basis*, base; *idion*, *dim.*] A special cell or row of cells, of certain fungi, forming spores by abstriction.

basidorsal (bāsīd'īōrsāl) *a.* [L. *basis*, base; *dorsum*, back.] *Appl.* small cartilaginous neural plate.

basifemur (bāsīfē'mūr) *n.* [L. *basis*, base; *femur*, thigh.] Proximal segment of femur, between trochanter and telofemur, in certain Acarina.

basifixed (bāsīfīksd) *a.* [L. *basis*, base; *figere*, to make fast.] Attached by base; innate, having filament attached to anther base.

basifugal (bāsīf'ūgāl) *a.* [L. *basis*, base; *fugere*, to flee.] Growing away from base.

basifuge (bāsīfūj) *n.* [L. *basis*, base; *fugere*, to flee.] A plant unable to tolerate basic soils; calcifuge. *a.* Oxyphilous.

basigamous (bāsīg'āmūs) *a.* [Gk. *basis*, base; *gamos*, marriage.] Having oosphere reversed in embryo-sac.

basigynium,—podogynium, *q.v.*

basihyal (bāsīhī'āl) *n.* [Gk. *basis*, base; *hyooides*, Y-shaped.] Broad median plate, the basal or median ventral portion of hyoid arch.

basilabium (bāsīlā'bīūm) *n.* [L. *basis*, base; *labium*, lip.] Sclerite

formed by fusion of labiostipites in insects.

basilar (bāzīlār) *a.* [L. *basis*, base.] *Pert.* near or growing from base; as artery, crest, membrane, plexus, plate, process, style.

basilemma (bā'silēm'ā) *n.* [Gk. *basis*, base; *lemma*, skin.] Basement membrane.

basilic (bāzīl'ik) *a.* [Gk. *basilikos*, royal.] *Appl.* a large vein on inner side of biceps of arm.

basilingual (bā'sīlīng'gwāl) *a.* [L. *basis*, base; *lingua*, tongue.] *Appl.* a broad cartilaginous plate, the body of the hyoid, in crocodiles, turtles, and amphibians.

basimandibula (bā'sīmāndīb'ūlā) *n.* [L. *basis*, base; *mandibulum*, lower jaw.] A small sclerite, on insect head, at base of mandible.

basimaxilla (bā'sīmāksil'ā) *n.* [L. *basis*, base; *maxilla*, upper jaw.] A sclerite at base of maxilla in insects.

basinym (bā'sīnīm) *n.* [Gk. *basis*, base; *onyma*, name.] The name upon which new names of species, etc. have been based; *cf.* isonym.

basioccipital (bā'sīōksīp'ītāl) *n.* [L. *basis*, base; *occiput*, back of head.] The median basilar bone or element in occipital region of skull.

basion (bā'sīōn) *n.* [Gk. *basis*, base.] The middle of anterior margin of foramen magnum.

basiophthalmite (bā'sīōfthāl'mīt) *n.* [Gk. *basis*, base; *ophthalmos*, eye.] The proximal joint of eye-stalk in crustaceans.

basiotic (bā'sīōt'ik) *a.* [Gk. *basis*, base; *ous*, ear.] Mesotic, *q.v.*

basipetal (bāsīp'ētāl) *a.* [L. *basis*, base; *petere* to seek.] Developing from apex to base; *appl.* leaves and inflorescences. *Opp.* acropetal.

basipharynx (bā'sīfār'īngks) *n.* [Gk. *basis*, base; *pharynx*, gullet.] In insects, epipharynx and hypopharynx united.

basiphil (bā'sīfil) *a.* [Gk. *basis*, base; *philein*, to love.] Basophil, *q.v.* *n.* A basiphil cell; a mast cell, *q.v.*

basipodite (bāsīp'ōdīt) *n.* [Gk. *basis*, base; *pous*, foot.] The second or distal joint of the protopodite of certain limbs of Crustacea; trochanter of spiders.

basipodium (bā'sīpō'diŭm) *n.* [Gk. *basis*, base; *pous*, foot.] Wrist or ankle.

basiproboscis (bā'sīprōbōs'is) *n.* [Gk. *basis*, base; *proboskis*, trunk.] Membranous portion of proboscis of some insects, consisting of mentum, submentum, and maxillary cardines and stipites.

basipterygium (bā'sītērij'iŭm) *n.* [Gk. *basis*, base; *pterygion*, little wing.] A large flat triangular bone in pelvic fin of teleosts, and a bone or cartilage in other fishes.

basipterygoid (bā'sītē'rigoid) *n.* [Gk. *basis*, base; *pteryx*, wing; *eidos*, form.] A process of the basisphenoid in some birds.

basiscopic (bā'siskōp'ik) *a.* [Gk. *basis*, base; *skopein*, to view.] Facing towards the base, *opp.* acroscopic.

basisphenoid (bā'sisfē'noid) *n.* [Gk. *basis*, base; *sphen*, wedge; *eidos*, form.] Cranial bone between basioccipital and presphenoid.

basisternum (bā'sistēr'nŭm) *n.* [L. *basis*, base; *sternum*, breast-bone.] The principal sclerite of insect sternum; antesternite, eusternum.

basistyle (bā'sistil) *n.* [Gk. *basis*, base; *stylos*, pillar.] Proximal part or coxite of gonostyle in mosquitoes; *cf.* dististyle.

basitarsus (bā'sītār'sŭs) *n.* [Gk. *basis*, base; *tarsos*, sole of foot.] Proximal tarsomere or 'metatarsus' of spiders. *Cf.* telotarsus.

basitemporal (bā'sitēm'pōrāl) *n.* [L. *basis*, base; *tempora*, temples.] A broad membrane bone covering basisphenoidal region of skull.

basitonic (bā'sitōn'ik) *a.* [Gk. *basis*, base; *tonos*, brace.] Having anther united at its base with rostellum; basitonous. *Opp.* acrotonic.

basivertebral (bā'sivēr'tēbrāl) *a.* [L. *basis*, base; *vertebra*, vertebra.] *Appl.* veins within bodies of verte-

brae and communicating with vertebral plexuses.

basket cells,—myo-epithelial cells surrounding glandular cells; cerebellar cortical cells with axon branches surrounding Purkinje cells.

basocyte (bā'sōsīt) *n.* [Gk. *basis*, base; *kytos*, hollow.] A basophil cell; a basophil leucocyte.

basophil (bā'sōfil) *a.* [Gk. *basis*, base; *philein*, to love.] Having a strong affinity for basic stains; also basiphil, basiphilic, basophile, basophilic, basophilous. *n.* A cell which stains with basic dyes.

basoplasm (bā'sōplāzm) *n.* [Gk. *basis*, base; *plasma*, anything moulded.] Cytoplasm which stains readily with basic dyes.

basopodite,—basipodite.

bast (bāst) *n.* [A.S. *baest*, bast.] The inner fibrous bark of certain trees; liber.

bastard merogony,—activation of an enucleated egg fragment by spermatozoon of a different species.

bastard wing,—the alula or ala spuria, consisting of three quill feathers borne on first digit of bird's wing.

bathmotropic (bāth'mōtrōp'ik) *a.* [Gk. *bathmos*, degree; *tropikos*, turning.] Affecting the excitability of tissue, as of muscular tissue. *n.* Bathmotropism.

bathyaesthesia (bāth'īēsthē'ziā) *n.* [Gk. *bathys*, deep; *aisthesis*, perception.] Sensation of stimuli within the body; deep sensibility.

bathyal (bāth'yāl) *a.* [Gk. *bathys*, deep.] *Appl.* or *pert.* zone of continental slope.

bathylimnetic (bāth'ilīmnēt'ik) *a.* [Gk. *bathys*, deep; *limnetes*, living in marshes.] Living or growing in the depths of lakes or marshes.

bathymetric (bāth'imēt'rik) *a.* [Gk. *bathys*, deep; *metron*, measure.] *Pert.* vertical distribution of organisms in space.

bathypelagic (bāth'ipēlāj'ik) *a.* [Gk. *bathys*, deep; *pelagos*, sea.] *Pert.*, or inhabiting, the deep sea.

bathysmal (băthíz'măl) *a.* [Gk. *bathys*, deep.] *Pert.* deepest depths of the sea.

batonnette (bătônĕt) *n.* [F. *bâtonnet*, small stick.] An element of the Golgi apparatus, *q.v.*

batrachian (bătră'kiăn) *a.* [Gk. *batrachos*, frog.] Relating to frogs and toads.

B-cells,—beta cells of islets of Langerhans.

B-chromosome, — supernumerary chromosome in maize.

B-complex,—a group of accessory food factors comprising thiamine or vitamin B₁, riboflavin (B₂), pantothenic acid (B₃), niacin or P-P factor, pyridoxin (B₆), biotin (H), inositol, choline, para-amino benzoic acid, and folic acid (M), and B₁₂ anti-pernicious-anaemia factor.

bdelloid (dĕl'oid) *a.* [Gk. *bdella*, leech; *eidos*, form.] Having the appearance of a leech.

beard (bĕrd) *n.* [A. S. *beard*, beard.] Any of the arrangements of hairs which resemble a man's beard, on heads of animals; barbed or bristly hair-like outgrowths on grain; awn.

bedeguar (bĕd'ĕgăr) *n.* [From Persian through F. *bédegua*.] A mossy gall produced on rose-bushes by Cynipides.

behaviorism (bĕhă'viôrizm) *n.* [A. S. *behabban*, to hold in.] Theory that the manner in which animals act may be explained in terms of conditioned neuromotor and glandular reactions.

belemnoid (bĕl'ĕmnoid, bĕlĕm'noid) *a.* [Gk. *belemnion*, dart; *eidos*, form.] Shaped like a dart; *appl.* styloid process.

Bellini's ducts [L. *Bellini*, Italian anatomist]. Tubes opening at apex of kidney papilla, and formed by union of smaller straight or collecting tubules.

bell-nucleus,—a solid mass of cells, derived from ectoderm and lying between ordinary ectoderm and mesogloea at apex of medusoid bud.

belonoid (bĕl'ōnoid) *a.* [Gk. *belone*,

needle; *eidos*, form.] Shaped like a needle; aciform, styloid.

benthic (bĕn'thĭk) *a.* [Gk. *benthos*, depths of sea.] *Pert.*, or living on, sea-bottom; benthal.

benthopotamous (bĕn'thōpōt'ămūs) *a.* [Gk. *benthos*, depths; *potamos*, river.] *Pert.*, growing, or living, on bed of a river or stream.

benthos (bĕn'thōs) *n.* [Gk. *benthos*. depths of sea.] The fauna and flora of the sea-bottom.

Berlese's organ [A. *Berlese*, Italian zoologist]. A glandular organ in haemocoel on right side of female abdomen in Cimec, secreting during passage of spermatozoa to spermatheca.

berry (bĕr'ī) *n.* [A. S. *berie*, berry.] Superior or inferior, indehiscent, many-seeded fruit, usually with fleshy pericarp; egg of lobster, or crayfish; dark knob-like structure on bill of swan.

Bertini's columns,—renal columns.

beta (β) **cells**,—basophil cells in pars glandularis of pituitary gland; cells elaborating insulin, in islets of Langerhans, B cells.

beta (β) **granules**,—granules in peripheral region of protoplast, a protein reserve in blue-green algae; cyanophycin.

betaine (bĕ'tāēn) *n.* [L. *beta*, beet.] A basic decomposition product of lecithin, occurring in beet and other plants, and in animals; C₅H₁₁O₂N.

between-brain,—diencephalon.

Betz cells [V. A. *Bets*, Russian histologist]. Giant pyramidal cells in motor area of cerebral cortex.

B-horizon,—the lower, illuvial soil layers.

biacuminate (bī'ākū'mīnāt) *a.* [L. *bis*, twice; *acumen*, point.] Having two tapering points.

biarticulate (bī'ärtĭk'ülāt) *a.* [L. *bis*, twice; *articulus*, joint.] Two-jointed.

bicapsular (bīkăp'sülăr) *a.* [L. *bis*, twice; *capsula*, little box.] Having two capsules or vessels; having a biloculate capsule.

bicarinate (bikār'ināt) *a.* [L. *bis*, twice; *carina*, keel.] With two keel-like processes.

bicarpellate (bikār'pēlāt) *a.* [L. *bis*, twice; Gk. *karpos*, fruit.] With two carpels; bicarpellary.

bicaudate (bikō'dāt) *a.* [L. *bis*, twice; *cauda*, tail.] Possessing two tail-like processes; bicaudal.

bicellular (bisēl'ülār) *a.* [L. *bis*, twice; *cellula*, little cell.] Composed of two cells.

bicentric (bī'sēntrik) *a.* [L. *bis*, twice; *centrum*, centre.] *Pert.* two centres; *appl.* distribution of species, etc., discontinuous owing to alteration in the intervening area.

biceps (bī'sēps) *n.* [L. *bis*, twice; *caput*, head.] A muscle with two heads or origins, as biceps brachii and femoris.

biciliate (bisīl'iāt) *a.* [L. *bis*, twice; *cilium*, eyelash.] Furnished with two cilia.

bicipital (bisīp'itāl) *a.* [L. *bis*, twice; *caput*, head.] *Pert.* biceps; *appl.* fascia, or lacertus fibrosus, an aponeurosis of distal tendon of the biceps brachii; a groove, the inter-tubercular sulcus, on upper part of humerus; ridges, the crests of the greater and lesser tubercles of the humerus; *appl.* a rib with dorsal tuberculum and ventral capitulum; divided into two parts at one end.

bicollateral (bikōlāt'ērāl) *a.* [L. *bis*, twice; *con*, together; *latus*, side.] Having the two sides similar; *appl.* a vascular bundle with phloem on both sides of xylem, as in Cucurbitaceae and Solanaceae.

bicolligate (bikōl'igāt) *a.* [L. *bis*, twice; *cum*, together; *ligare*, to bind.] With two stretches of webbing on the foot.

biconjugate (bikōn'joogāt) *a.* [L. *bis*, twice; *cum*, with; *jugum*, yoke.] With two similar sets of pairs.

bicornute (bikōrnūt') *a.* [L. *bis*, twice; *cornutus*, horned.] With two horn-like processes.

bicostate (bikōs'tāt) *a.* [L. *bis*, twice, *costa*, rib.] Having two longitudinal ridges or ribs, as a leaf.

bicrenate (bikrē'nāt) *a.* [L. *bis*, twice; *crena*, notch.] Doubly crenate, as crenate leaves with notched toothed margins.

bicuspid (bikūs'pid) *a.* [L. *bis*, twice; *cusps*, point.] Having two cusps or points; *appl.* valve consisting of anterior and posterior cusps attached to circumference of left atrioventricular orifice, mitral valve; *appl.* teeth: premolar.

bicyclic (bisfk'lik) *a.* [L. *bis*, twice; Gk. *kyklos*, circle.] Arranged in two whorls.

Bidder's ganglia [*F. H. Bidder*, Estonian anatomist]. A collection of nerve-cells in region of the auriculo-ventricular groove.

Bidder's organ,—a rudimentary ovary attached to anterior end of generative organs in the toad.

bidental (bidēn'tāl) *a.* [L. *bis*, twice; *dens*, tooth.] Having two teeth, or tooth-like processes; bidentate.

bidenticulate (bī'dēntik'ülāt) *a.* [L. *bis*, twice; *dīm*, of *dens*, tooth.] With two small teeth or tooth-like processes, as some scales.

biennial (biēn'iāl) *a.* [L. *bis*, twice; *annus*, year.] Lasting for two years. *n.* A biennial plant.

bifacial (bifā'siāl, bifā'shāl) *a.* [L. *bis*, twice; *facies*, face.] *Appl.* leaves with distinct upper and lower surfaces; dorsiventral.

bifarious (bifā'riūs) *a.* [L. *bis*, twice; *fariam*, in rows.] Arranged in two rows, one on each side of axis.

bifid (bīf'id) *a.* [L. *bis*, twice; *findere*, to split.] Forked, opening with a median cleft; divided nearly to middle line.

biflabellate (bī'flabēl'āt) *a.* [L. *bis*, twice; *flabellum*, fan.] Doubly flabellate, each side of antennal joints sending out flabellate processes.

biflagellate (bīflāj'ēlāt) *a.* [L. *bis*, twice; *flagellum*, whip] Having two flagella.

biflex (bī'flēks) *a.* [L. *bis*, twice; *flectere*, to bend.] Twice curved.

biflorate (biflō'rāt) *a.* [L. *bis*, twice; *flos*, flower.] Bearing two flowers; biflorous.

bifoliar (bifō'liār) *a.* [L. *bis*, twice; *folium*, leaf.] Having two leaves.

bifoliate (bifō'liāt) *a.* [L. *bis*, twice; *folium*, leaf.] *Appl.* palmate compound leaf with two leaflets.

biforate (bif'ōrāt) *a.* [L. *biforis*, having double doors.] Having two foramina or pores; biforous.

biforin (bif'ōrin) *n.* [L. *bis*, twice; *foris*, door.] An oblong raphidian cell opening at each end.

biforous (bif'ōrūs) *a.* [L. *biforis*, with two openings.] *Appl.* spiracles in larvae of certain beetles; biforate.

bifurcate (bifūr'kāt) *a.* [L. *bis*, twice; *furca*, fork.] Forked; having two prongs; having two joints, the distal V-shaped and attached by its middle to the proximal.

bigeminal (bijēm'ināl) *a.* [L. *bis*, twice; *geminus*, double.] With structures arranged in double pairs; *appl.* arrangement of pore-pairs in two rows, in ambulacra of some echinoids; *pert.* corpora bigemina.

bigeminate (bijēm'ināt) *a.* [L. *bis*, twice; *geminus*, double.] Doubly-paired; twin-forked.

bigeminum,—one of the corpora bigemina.

bigener (bijē'nēr) *n.* [L. *bis*, twice; *genus*, race.] A bigeneric hybrid.

bigeneric (bijē'nēr'ik) *a.* [L. *bis*, twice; *genus*, race.] *Appl.* hybrids between two distinct genera.

bigugate (bijoo'gāt) *a.* [L. *bis*, twice; *jugare*, to join.] With two pairs of leaflets.

bilabiate (bilā'biāt) *a.* [L. *bis*, twice; *labium*, lip.] Two-lipped; *appl.* calyx, corolla, dehiscence.

bilamellar (bilāmēl'ār) *a.* [L. *bis*, twice; *lamella*, plate.] Formed of two plates; having two lamellae.

bilaminar (bilām'inār) *a.* [L. *bis*, twice; *lamina*, thin plate.] Having two plate-like layers; diploblastic; bilaminate.

bilateral (bilāt'erāl) *a.* [L. *bis*,

twice; *latus*, side.] Having two sides symmetrical about an axis.

bile (bil) *n.* [L. *bilis*, bile.] The secretion of the liver, passing to duodenum and assisting digestion.

biliary (bil'iārī) *a.* [L. *bilis*, bile.] Conveying or *pert.* bile.

biliation,—the secretion of bile.

bilicyanin (bil'isi'anin) *n.* [L. *bilis*, bile; Gk. *kyanos*, dark blue.] A blue pigment resulting from oxidation of biliverdin; cholecyanin.

bilifulvin,—bilirubin.

bilineurine,—choline.

bilipurpurin (bil'ipūr'pūrin) *n.* [L. *bilis*, bile; *purpura*, purple.] Phylloerythrin.

bilirubin (bil'iroo'bīn) *n.* [L. *bilis*, bile; *ruber*, red.] A reddish-yellow pigment of bile and blood, end-product of hæmoglobin metabolism; also bilifulvin, biliphaein; $C_{32}H_{38}N_4O_6$.

biliverdin (bil'ivēr'dīn) *n.* [L. *bilis*, bile; F. *vert*, green.] A green bile pigment formed by oxidation of bilirubin; $(C_{16}H_{18}N_2O_4)_n$.

bilobate (bilō'bāt) *a.* [L. *bis*, twice; L.L. *lobus*, from Gk. *lobos*, rounded flap.] Having two lobes.

bilobular (bilōb'ulār) *a.* [L. *bis*, twice; L. *lobulus*, *dim.* of *lobus*, lobe.] Having two lobules.

bilocellate (bil'ösēl'āt) *a.* [L. *bis*, twice; *locellus*, *dim.* of *locus*, place.] Divided into two compartments; having two locelli.

bilocular (bilōk'ulār), **biloculine** (bil'ōk'ulīn) *a.* [L. *bis*, twice; *locus*, place.] Containing two cavities or chambers; *cf.* *loculus*.

bilophodont (bilōf'ōdōnt) *a.* [L. *bis*, twice; Gk. *lophos*, ridge; *odous*, tooth.] *Appl.* molar teeth of tapir, which have ridges joining the two anterior and two posterior cusps.

bimaculate (bimāk'ulāt) *a.* [L. *bis*, twice; *macula*, spot.] Marked with two spots or stains.

bimanous (bīm'anūs) *a.* [L. *bis*, twice; *manus*, hand.] Having two hands; *appl.* certain Primates.

bimastism (bīmās'tizm) *n.* [L. *bis*, twice; Gk. *mastos*, breast.] Condition of having two mammae.

bimuscular (bīmūs'kūlār) *a.* [L. *bis*, twice; *musculus*, muscle.] Having two muscles.

binary (bī'nārī) *a.* [L. *binarius*, from *bini*, pair.] Composed of two units; *appl.*, e.g., acids composed of hydrogen and one other element.

binary fission,—division of a cell into two by an apparently simple division of nucleus and cytoplasm.

binary nomenclature,—binomial nomenclature, *q.v.*

binate (bī'nāt) *a.* [L. *bini*, two by two.] Growing in pairs; *appl.* leaf composed of two leaflets.

binaural (bīnō'rāl) *a.* [L. *bini*, pair; *auris*, ear.] *Pert.* both ears; binotic.

binocular (bīnōk'ulār) *a.* [L. *bini*, pair; *oculus*, eye.] Having or *pert.* two eyes; stereoscopic, *appl.* vision.

binodal (bīnō'dāl) *a.* [L. *bis*, twice; *nodus*, knob.] Having two nodes, as stem of plant.

binomial (bīnō'miāl) *a.* [L. *bis*, twice; *nomen*, name.] Consisting of two names; *appl.* nomenclature, the system of double names given to plants and animals,—first generic name, then specific, as *Felis* (genus) *tigris* (species).

binomialism (bīnō'miālizm) *n.* [L. *bis*, twice; *nomen*, name.] The system of binomial nomenclature.

binominal,—binomial.

binovular (bīnōv'ulār) *a.* [L. *bini*, pair; *ovum*, egg.] *Pert.* two ova; dizygotic; *appl.* twinning.

binuclear (bīnū'klēār), **binucleate** (bīnū'klēāt) *a.* [L. *bis*, twice; *nucleus*, small nut.] Having two nuclei.

bioblast (bī'ōblāst) *n.* [Gk. *bios*, life; *blastos*, bud.] A hypothetical unit, *q.v.*

biocatalyst (bī'ōkāt'ālist) *n.* [Gk. *bios*, life; *katalysis*, dissolving.] An enzyme; a ferment.

biocellate (bīōs'ēlāt) *a.* [L. *bis*,

twice; *ocellus*, *dim.* of *oculus*, eye.] Having two ocelli.

biocenosis,—biocoenosis, *q.v.*

biochemistry (bī'ōkēm'istri) *n.* [Gk. *bios*, life; *chemeia*, transmutation.] The chemistry of living organisms.

biochore (bī'ōkōr) *n.* [Gk. *bios*, life; *choris*, separate.] Boundary of a floral or faunal region; climatic boundary of a floral region; a group of similar biotopes.

biochrome (bī'ōkrōm) *n.* [Gk. *bios*, life; *chroma*, colour.] Any natural colouring matter of plants and animals; biological pigment.

biocoenosis (bī'ōsēnō'sis) *n.* [Gk. *bios*, life; *koinos*, common.] A community of organisms inhabiting a biotope; biocenosis.

biocycle (bī'ōsikl) *n.* [Gk. *bios*, life; *kyklos*, place of assembly.] One of the three main divisions of the biosphere: marine, or fresh-water, or terrestrial habitat.

biodemography (bīōdēmōg'rāfi) *n.* [Gk. *bios*, life; *demos*, people; *graphein*, to write.] Science dealing with the integration of ecology and genetics of populations.

biodynamics (bī'ōdīnām'iks) *n.* [Gk. *bios*, life; *dynamis*, power.] The science of the active vital phenomena of organisms.

bioecology (bī'ōēkōl'ōji) *n.* [Gk. *bios*, life; *oikos*, household; *logos*, discourse.] Ecology of plants and animals.

bioelectric (bī'ōēlēk'trik) *a.* [Gk. *bios*, life; *elektron*, amber.] *Appl.* currents produced in living organisms.

bioenergetics (bī'ōēnērjēt'iks) *n.* [Gk. *bios*, life; *energeia*, action.] Study of energy transformations in living organisms.

bioflavonoids (bī'ōflāvōnoidz) *n. plu.* [Gk. *bios*, life; L. *flavus*, yellow; Gk. *eidōs*, form.] Compounds, occurring in citrus and other fruits, which interact with various metabolic products and enzymes in animals, and maintain normal permeability of capillaries; vitamin P.

biogen (bī'ōjēn), **biogene** (biōjēn) *n.*

[Gk. *bios*, life; *genos*, descent.] A hypothetical unit, *q.v.*; a large living molecule; precursor of bios, *q.v.*

biogenesis (bī'ōjēn'ēsis) *n.* [Gk.

bios, life; *genesis*, descent.] The theory of the descent of living matter from living matter—*omne vivum e vivo*. *Opp.* abiogenesis.

biogenetic law, — recapitulation theory, *q.v.*

biogenous (biōj'ēnūs) *a.* [Gk. *bios*, life; *genos*, offspring.] Inhabiting living organisms, as parasites.

biogeny (biōj'ēni) *n.* [Gk. *bios*, life;

genesis, descent.] The science of the evolution of organisms, comprising ontogeny and phylogeny.

biogeochemistry (bī'ōjē'ōkēm'īstri)

n. [Gk. *bios*, life; *ge*, earth; *chemēia*, transmutation.] The study of the distribution and migration of chemical elements present in living organisms and in interaction with their geographical environment.

biogeography (bi'ōjēōg'rāfi) *n.* [Gk.

bios, life; *ge*, earth; *graphein*, to write.] The part of biology dealing with the geographical distribution of plants (phytogeography) and animals (zoogeography); chorology.

biological (biōlōj'ikāl) *a.* [Gk. *bios*,

life; *logos*, discourse.] Relating to the science of life.

biology (biōl'ōji) *n.* [Gk. *bios*, life;

logos, discourse.] The science of life and living.

bioluminescence (bi'ōlūminēs'ēns,

-loo-) *n.* [Gk. *bios*, life; L. *luminescere*, to grow light.] Light-production, as in many groups of animals, and in bacteria and fungi.

biolysis (biōl'īsis) *n.* [Gk. *bios*, life;

lysis, loosing.] The decomposition of organic matter resulting from activity of living organisms; disintegration of life.

biolytic (biōlīt'ik) *a.* [Gk. *bios*, life;

lyein, to break up.] *Pert.* biolysis; destroying life.

biomass (bi'ōmās) *n.* [Gk. *bios*, life;

massein, to squeeze.] Total weight of organisms per unit area.

biome (biōm) *n.* [Gk. *bios*, life.] A

major community of living organisms; a complex of climax communities of plants and animals in a major region, as tundra, forest, grassland, desert, mountain; major life zone.

biometeorology (bi'ōmētēōrōl'ōji) *n.*

[Gk. *bios*, life; *meteorologia*, treatise on the heavenly bodies.] The study of the effects of atmospheric conditions upon plants and animals.

biometrics (biōmēt'riks) *n.* [Gk.

bios, life; *metron*, measure.] The statistical study of living organisms and their variations; biometry.

bion (bi'ōn), **biont** (bi'ōnt) *n.* [Gk.

bion, living.] An independent living organism; an individual organism.

bionergy (bi'ōnērji) *n.* [Gk. *bios*,

life; *energeta*, action.] Vital force.

bionomics (biōnōm'iks) *n.* [Gk.

bios, life; *nomos*, law.] The study of organisms in relation to their environment; bionomy; ecology.

biophore (bi'ōfōr) *n.* [Gk. *bios*, life;

pherein, to carry.] A hypothetical unit, *q.v.*

biophotogenesis (bi'ōfōtōjēn'ēsis) *n.*

[Gk. *bios*, life; *phos*, light; *genesis*, origin.] The production and emission of light by plants or by animals; bioluminescence.

biophysics (biōfiz'iks) *n.* [Gk. *bios*,

life; *physis*, nature.] Study of biological phenomena interpreted in terms of physical principles; physics as applicable to biology.

biophyte (bi'ōfit) *n.* [Gk. *bios*, life;

phyton, plant.] A plant which gets sustenance from living organisms.

bioplasm (bi'ōplāzm) *n.* [Gk. *bios*,

life; *plasma*, mould.] Living matter; protoplasm.

bioplast (bi'ōplāst) *n.* [Gk. *bios*, life;

plastos, formed.] A minute quantity of living protoplasm capable of reproducing itself.

biopsy (bi'ōpsi) *n.* [Gk. *bios*, life;

opsis, sight.] Examination of living organisms, organs, or tissues.

biorgan (bi'ōrgān) *n.* [Gk. *bios*, life;

organon, instrument.] An organ in the physiological sense, not necessarily a morphological unit.

bios (bí'ós) *n.* [Gk. *bios*, life.] Organic life, plant or animal; a complex mixture of vitamins or growth factors; B complex, *q.v.*

bioseries (bí'ösēriēz) *n.* [Gk. *bios*, life; L. *series*, row.] A succession of changes of any single heritable character.

biosis (biō'sis) *n.* [Gk. *biosis*, a living.] Mode of living; vitality.

biosomes (bí'östōmz) *n. plu.* [Gk. *bios*, life; *soma*, body.] Structural and functional units in cytoplasm, as chondriosomes, chromidia and plastids.

biosphere (bí'ösfēr) *n.* [Gk. *bios*, life; *sphaira*, globe.] The part of the globe containing living organisms.

biostatics (bí'östāt'iks) *n.* [Gk. *bios*, life; *statos*, stationary.] The science of structure in relation to function of organisms.

biosystem,—ecosystem.

biosystematics,—genonomy; taxonony.

biota (biō'tā) *n.* [Gk. *bios*, life.] The fauna and flora of a region.

biotic (biōt'ik) *a.* [Gk. *biotikos*, *pert.* life.] *Pert.* life; vital.

biotic community,—a community of plants and animals as a whole.

biotic formation,—biome.

biotic potential,—highest possible rate of population increase, resulting from maximum natality and minimum mortality.

biotin (bí'ötín) *n.* [Gk. *bios*, life.] Vitamin H, a growth substance of yeast, also obtained from liver; or coenzyme R, required by nitrogen-fixing bacteria; antiperiosis factor; antiavidin; $C_{10}H_{16}O_2N_2S$.

biotomy (biōt'ōmí) *n.* [Gk. *bios*, life; *tomē*, cutting.] The dissection of living organisms; vivisection.

biotonus (biōt'ōnūs) *n.* [Gk. *bios*, life; *tonos*, tension.] The ratio between assimilation and dissimilation of biogens.

biotope (bí'ötōp) *n.* [Gk. *bios*, life; *topos*, place.] An area in which the main environmental conditions and biotypes adapted to them are

uniform; a place where organisms can survive; also, microhabitat.

biotype (bí'ötíp) *n.* [Gk. *bios*, life; L. *typus*, image.] Type of plant or animal; all the individuals of equal genotype.

biovular,—binovular.

biovulate (biōv'ulāt) *a.* [L. *bis*, twice; *ovum*, egg.] Containing two ovules.

bipaleolate (bipā'lēölāt) *a.* [L. *bis*, twice; *palea*, chaff.] Furnished with two small paleae.

bipalmate (bipāl'māt) *a.* [L. *bis*, twice; *palma*, palm of hand.] Lobed with the lobes again lobed.

biparietal (bí'pāri'ētāl) *a.* [L. *bis*, twice; *paries*, wall.] Connected with the two parietal eminences.

biparous (bip'ārūs) *a.* [L. *bis*, twice; *parere*, to bear.] Having two young at a time; dichotomous, *appl.* branching.

bipectinate (bipēk'tināt) *a.* [L. *bis*, twice; *pecten*, comb.] Having the two margins furnished with teeth like a comb.

biped (bí'pēd) *n.* [L. *bis*, twice; *pes*, foot.] A two-footed animal.

bipennate (bipēn'āt) *a.* [L. *bis*, twice; *penna*, feather.] Bipenniform; *appl.* muscles in which the tendon of insertion extends through the middle.

bipenniform (bipēn'ifōrm) *a.* [L. *bis*, twice; *penna*, feather; *forma*, shape.] Feather-shaped, with sides of vane of equal size; bipennate.

bipetalous (bipēt'ālūs) *a.* [L. *bis*, twice; Gk. *petalon*, leaf.] With two petals.

bipinnaria (bipinā'riā) *n.* [L. *bis*, twice; *pinna*, feather.] An asteroid larva with two bands of cilia.

bipinnate (bipin'āt) *a.* [L. *bis*, twice; *pinna*, feather.] Having leaflets growing in pairs on paired stems.

bipinnatifid (bí'pināt'ifid) *a.* [L. *bis*, twice; *pinna*, feather; *findere*, to cleave.] With leaves segmented and these segments again divided.

bipinnatipartite (bí'pínăt'ípârtit) *a.* [L. *bis*, twice; *pinna*, feather; *partiri*, to divide.] Bipinnatifid, but with divisions extending nearly to midrib.

bipinnatisect (bí'pínăt'ísëkt) *a.* [L. *bis*, twice; *pinna*, feather; *secare*, to cut.] Bipinnatifid, but with divisions extending to midrib.

biplicate (bí'p'likât) *a.* [L. *bis*, twice; *plicare*, to fold.] Having two folds.

bipocillus (bí'pôsíl'üs) *n.* [L. *bis*, twice; *pocillum*, little cup.] A microscleure with curved shaft and cup-shaped expansion at each end.

bipolar (bí'pölär'lä) *a.* [L. *bis*, twice; *polus*, pole.] Having, located at, or *pert.* two ends or poles; *appl.* nerve cells having a process at each end; *appl.* allied species occurring towards Arctic and Antarctic regions.

bipolarity (bí'pölär'lä) *n.* [L. *bis*, twice; *polus*, pole.] The condition of having two polar processes; condition of having two distinct poles, as vegetative and animal poles in an egg; bipolar distribution, as of species.

biradial (bí'ră'diäl) *a.* [L. *bis*, twice; *radius*, ray.] Symmetrical both radially and bilaterally, as some coelenterates; disymmetrical.

biramous (bí'ră'müs) *a.* [L. *bis*, twice; *ramus*, branch.] Divided into two branches; biramose.

birostrate (bí'rös'trát) *a.* [L. *bis*, twice; *rostrum*, beak.] Furnished with two beak-like processes.

birth pore,—uterine pore of trematodes and cestodes; birth-opening of redia of trematodes.

biscociform (bískök'tíförm) *a.* [L. *bis*, twice; *coctus*, baked; *forma*, shape.] Biscuit-shaped; *appl.* spores.

bisepitate (bí'sép'tât) *a.* [L. *bis*, twice; *septum*, fence.] With two partitions.

biserial (bí'sē'riäl) *a.* [L. *bis*, twice; *series*, row.] Arranged in two rows or series; biseriate.

biserrate (bí'sér'ät) *a.* [L. *bis*, twice;

serra, saw.] Having marginal teeth which are themselves notched.

bisexual (bí'sëk'süäl, *a.* [L. *bis*, twice; *sexus*, sex.] Having both male and female reproductive organs; hermaphrodite; amphisporangiate, *g.v.*

bisporangiate (bí'spörän'jiät) *a.* [L. *bis*, twice; Gk. *sporos*, seed; *angeion*, vessel.] Having both micro- and megasporangia; *appl.* strobilus consisting of both micro- and megasporophylls.

bisporic (bí'spör'ík) *a.* [L. *bis*, twice; Gk. *sporos*, seed.] With two spores; *appl.* basidia; disporous.

bistephanic (bí'stëfän'ík) *a.* [L. *bis*, twice; Gk. *stephanos*, crown.] Joining two points where coronal suture crosses superior temporal ridges.

bistipulate (bí'stip'ülât) *a.* [L. *bis*, twice; *stipula*, stem.] Provided with two stipules.

bistrate (bí'strât) *a.* [L. *bis*, twice; *stratum*, layer.] Having two layers; *appl. e.g.* indumentum.

bistratose (bí'stră'tös) *a.* [L. *bis*, twice; *stratum*, layer.] With cells arranged in two layers.

bisulcate (bí'sül'kât) *a.* [L. *bis*, twice; *sulcus*, groove.] Having two grooves.

bitemporal (bí'tëm'pöräl) *a.* [L. *bis*, twice; *tempora*, temples.] *Appl.* two temporal bones; a line joining posterior ends of two zygomatic processes.

biterbate (bí'tër'nât) *a.* [L. *bis*, twice; *terni*, three by three.] Ternate with each division itself again ternate.

bitheca (bíthë'kâ) *n.* [L. *bis*, twice; *theca*, case.] A theca budded from a stolothea, and surrounding the male polyp in graptolites.

bivalent (bí'välënt, bí'älënt) *a.* [L. *bis*, twice; *valere*, to be strong.] *Appl.* paired homologous chromosomes.

bivalve (bí'välv) *a.* [L. *bis*, twice; *valvae*, folding-doors.] Consisting of two plates or valves, as a mussel shell; or *appl.* a seed-capsule of similar structure.

biventer cervicis (bivēn'tēr sērvi'sis) *n.* [L. *bis*, twice; *venter*, belly; *cervix*, neck.] The spinalis capitis, or medial part of semispinalis, a muscle of neck, consisting of two fleshy ends with narrow tendinous portion in middle.

biventral (bivēn'trāl) *a.* [L. *bis*, twice; *venter*, belly.] *Appl.* muscles of the biventer type; digastric; *appl.* a lobule of the cerebellum.

biverticillate (bī'vērtis'ilāt) *a.* [L. *bis*, twice; *verticillus*, small whorl.] Having two verticils or whorls.

bivittate (bīvīt'āt) *a.* [L. *bis*, twice; *vitta*, band.] With two oil receptacles; with two stripes.

bivium (bīv'ium) *n.* [L. *bis*, twice; *via*, way.] Generally the posterior pair of ambulacral areas in certain Echinoidea; the two rays between which the madreporite lies.

bivoltine (bīvōl'tīn) *a.* [L. *bis*, twice; It. *volta*, time.] Having two broods in a year; *appl.* silk-worms.

bladder (blād'ēr) *n.* [A.S. *blaedre*, bag.] A membranous sac filled with air or fluid; a cyst; vesica.

bladder-cell,—a globular modified hyphal cell in integument of carpophore; volva bladder.

bladderworm stage,—cysticercus stage in tape-worms.

blade (blād) *n.* [A.S. *blaed*, leaf.] The flat part of leaf of grasses; lamina.

Blandin's glands [*P.-F. Blandin*, French surgeon]. Anterior lingual glands; glands of Nuhn.

blastaea (blāstē'ā) *n.* [Gk. *blastos*, bud.] A planaea or ciliated planula, a hypothetical stage in evolution.

blastelasma (blāst'ēlās'mā) *n.* [Gk. *blastos*, bud; *elasma*, plate.] Any germ layer formed after formation of epiblast and hypoblast.

blastema (blāst'ēmā) *n.* [Gk. *blastema*, bud.] Formative substance in an egg; primordium of an organ; thallus of a lichen.

blastic (blās'tik) *a.* [Gk. *blastos*, bud.] *Pert.* or stimulating enlargement by cell-division; *opp.* trophic.

blastocarpous (blās'tōkār'pūs) *a.*

[Gk. *blastos*, bud; *karpōs*, fruit.] Developing while still surrounded by pericarp.

blastochrome (blās'tōkēm) *n.* [Gk. *blastos*, bud; *ochema*, vessel.] A reproductive individual in some Medusae.

blastocholines (blās'tōkō'lēnz) *n. plu.* [Gk. *blastos*, bud; *cholos*, halting.] Various substances, present in sporangia, seeds, and fruits, which prevent premature germination; germination inhibitors.

blastochyle (blās'tōkil) *n.* [Gk. *blastos*, bud; *chylos*, juice.] The fluid in a blastocoel or segmentation-cavity.

blastocoel (blās'tōsēl) *n.* [Gk. *blastos*, bud; *koilos*, hollow.] The segmentation-cavity, cavity of a blastula.

blastocolla (blās'tōkōl'ā) *n.* [Gk. *blastos*, bud; *kolla*, glue.] A gummy substance coating certain buds.

blastocone (blās'tōkōn) *n.* [Gk. *blastos*, bud; *konos*, cone.] An outer larger cell of first circumferential division, in segmentation of certain eggs.

blastocyst (blās'tōsist) *n.* [Gk. *blastos*, bud; *kystis*, bladder.] The germinal vesicle.

blastocyte (blās'tōsit) *n.* [Gk. *blastos*, bud; *kytos*, hollow.] Any undifferentiated embryonic cell.

blastoderm (blās'tōdērm) *n.* [Gk. *blastos*, bud; *derma*, skin.] The germinal disc.

blastodermic vesicle,—hollow sphere of cells, an early stage in development of a fertilised ovum.

blastodisc (blās'tōdisk) *n.* [Gk. *blastos*, bud; *diskos*, disk.] The germinal area of a developing ovum; blastodisk, blastoderm, germinal disc.

blastogene,—plasmagene, *q.v.*

blastogenesis (blās'tōjēn'ēsīs) *n.* [Gk. *blastos*, bud; *genesis*, descent.] Gemmation or reproduction by budding; transmission of inherited characters by means of germ-plasm only.

- blastogenic** (blās'tōjēn'ik) *a.* [Gk. *blastos*, bud; *genos*, offspring.] *Appl.* inactive idioplasm unalterable till time and place of activity are reached; arising from changes in germ cells; *appl.* characteristics of germinal constitution; *appl.* reproduction by budding.
- blastokinesis** (blās'tōklnē'sis) *n.* [Gk. *blastos*, bud; *kinesis*, movement.] Movement of embryo in the egg, as in certain insects and cephalopods.
- blastomere** (blās'tōmēr) *n.* [Gk. *blastos*, bud; *meros*, part.] One of the cells formed during primary divisions of an egg; cleavage cell.
- blastoneuropore** (blās'tōnū'rōpōr) *n.* [Gk. *blastos*, bud; *neuron*, nerve; *poros*, passage.] A temporary passage connecting blastopore and neuropore.
- blastophore** (blās'tōfōr) *n.* [Gk. *blastos*, bud; *pherein*, to bear.] Embryonic origin of plumule; the reproductive body in Alcyonaria; central part of spermatocyte mass which remains unchanged through spermatogenesis in Annelida.
- blastophthoria** (blās'tōfthō'riā) *n.* [Gk. *blastos*, bud; *phthora*, corruption.] Any injurious effect on germ cells or on germ plasm.
- blastopore** (blās'tōpōr) *n.* [Gk. *blastos*, bud; *poros*, passage.] Channel leading into archenteron of gastrula.
- blastosphere** (blās'tōsfēr) *n.* [Gk. *blastos*, bud; *sphaira*, globe.] The blastula; blastodermic vesicle; a hollow ball of cells.
- blastospore** (blās'tōspōr) *n.* [Gk. *blastos*, bud; *sporos*, seed.] An attached thallospore developed by budding and itself capable of budding, as of yeast cells.
- blastostyle** (blās'tōstil) *n.* [Gk. *blastos*, bud; *stylos*, pillar.] In Hydrozoa, a columniform zooid with or without mouth and tentacles, bearing gonophores.
- blastozoite** (blās'tōzō'it) *n.* [Gk. *blastos*, bud; *zoe*, life.] An individual organism produced by budding.
- blastozooid** (blās'tōzō'oid) *n.* [Gk. *blastos*, bud; *zoon*, animal; *eidos*, form.] A larval bud in precocious budding in ascidians.
- blastula** (blās'tulā) *n.* [L. *dim.* of Gk. *blastos*, bud.] A hollow ball of cells, with wall usually one layer thick; blastosphere.
- blastulation** (blās'tulā'shūn) *n.* [L. *blastula*, little bud.] Formation of blastulae.
- bleeder**,—an individual subject to haemophilia, *q.v.*
- bleeding**, of plants, exudation of watery sap from vessels at a cut surface, due to root-pressure.
- blematogen** (blēmāt'ōjēn) *n.* [Gk. *blema*, coverlet; *gennaein*, to produce.] Primordial covering of a carophore; undeveloped universal veil in agarics; primordial cuticle.
- blended inheritance**,—mixed race or descent; mingling or non-segregation of parental characteristics.
- blendling** (blēn'dlīng) *n.* [A.S. *blandan*, to mix.] A racial hybrid.
- blennoid** (blēn'oid) *a.* [Gk. *blennos*, mucus; *eidos*, form.] Resembling mucus.
- blephara** (blēf'ārā) *n.* [Gk. *blepharis*, eyelash.] Peristome tooth in mosses.
- blepharal** (blēf'ārāl) *a.* [Gk. *blepharon*, eyelid.] *Pert.* eyelids.
- blepharoplast** (blēf'ārōplāst) *n.* [Gk. *blepharis*, eyelash; *plastos*, formed.] A basal granule in relation with a motor cell organ, as the flagellum of Flagellata; blepharoblast.
- blight** (blit) *n.* [A.S. *blæcan*, to grow pale.] An insect or fungus producing a plant disease; the disease itself.
- blind pit**,—a cell-wall pit which is not backed by a complementary pit.
- blind spot**,—region of retina devoid of rods and cones and where optic nerve enters; optic disc.
- blister** (blis'tēr) *n.* [A.S. *blowan*, to blow.] A subcutaneous bubble or bladder filled with fluid; a certain plant disease.

blood (blūd) *n.* [A.S. *blōd*, blood.]

The fluid circulating in the vascular system of animals, distributing food-material and oxygen and collecting waste products.

blood cells,—cells derived by mitosis from ordinary mesoderm cells; primitive haematoblasts.

blood crystals,—crystals of haemoglobin, haemin, or haematoidin, which form when blood is shaken up with chloroform or ether.

blood dust,—fine droplets of neutral fats present in the blood stream; haemokonia.

blood gills,—delicate blood-filled sacs functioning in uptake of salts, in certain insects.

blood groups,—types of blood depending on presence or absence of two agglutinogens (A and B) in the red corpuscles and two agglutinins (α or anti-A, and β or anti-B) in serum or plasma: A cells agglutinate with B type serum, B with A type, AB with A and B type, and O cells not agglutinating with A and B types; *cf.* universal donor, universal recipient.

blood islands,—isolated reddish patches in mesoderm, in which primitive erythroblasts are found enclosed in a mesodermal syncytium; blood anlage, haemangioblast.

blood platelets,—colourless bodies about one-third the size of red corpuscles, and formed from megakaryocytes, and agglutinating in shed blood; thrombocytes; thromboplastids.

blood plates,—minute amoeboid protoplasmic bodies found in blood.

blood serum,—fluid or plasma left after removal of corpuscles and fibrin.

blood shadow,—the colourless stroma of red blood corpuscles.

blood sugar,— $\alpha\beta$ -D-glucose.

blood vessel,—any vessel or space in which blood circulates; strictly used only in regard to special vessels with well-defined walls.

bloom (bloom) *n.* [A.S. *blōwan*, to

bloom.] A layer of wax particles on external surface of certain fruits, as grapes, peaches; blossom or flower; seasonal dense phytoplankton.

blubber (blüb'ēr) *n.* [M.E. *blober*, a bubble.] Fat of whales, seals, etc., lying between outer skin and muscle layer.

blue timber,—a wood disease produced by fungus, causing a bluish discoloration.

body blight,—fungal disease of trees.

body cavity,—coelom or space in which viscera lie, mesodermal in origin, and schizocoelic or enterocoelic in development; considered primarily, the generative cavity.

body cell,—a somatic cell as distinct from a germ cell; an antheridial cell.

body stalk,—a band of mesoderm connecting caudal end of embryo with chorion.

Boettcher's cells,—granular cells between Claudius' cells and basilar membrane in organ of Corti.

Bojanus, organ of [*L. H. Bojanus*, Alsatian zoologist]. Excretory organ in lamellibranchs.

boletiform (bōlē'tifōrm) *a.* [*L. boletus*, a mushroom; *forma*, shape.] Shaped like a somewhat elliptic spindle, *appl.* spores of some Boletaceae; subfusiform.

bolus (bō'lūs) *n.* [*L. bolus*, from Gk. *bolos*, lump.] A rounded mass; lump of chewed food.

bone (bōn) *n.* [A.S. *ban*, bone.] Connective tissue in which the ground-substance contains salts of lime.

bone-beds,—deposits formed largely by remains of bones of fishes and reptiles, as Liassic bone-beds.

bones of Bertin [*E. J. Bertin*, French anatomist]. Thin anterior coverings of sphenoidal sinuses.

bonitation (bōnitā'shūn) *n.* [*L. bonitas*, goodness.] The evaluation of the numerical distribution of a species in a particular locality or season, in relation to agricultural, veterinary, or medical implications.

book gill,—a gill composed of delicate leaf-like lamellae placed one over the other like leaves of a book, as seen in *Limulus*.

book lung,—a gill similar to a book gill, but modified for air-breathing, and open to exterior only by a small slit, as in scorpions.

booted (boot'éd) *a.* [O.F. *boute*, boot.] Equipped with raised horny plates of skin, as feet of some birds; caligate, *q.v.*

bordered pit,—a form of pit, developed on walls of tracheids and wood-vessels, with overarching border of secondary cell-wall.

boreal (bō'rēäl) *a.* [L. *boreas*, north wind.] *Appl.* or *pert.* northern biogeographical region; holarctic except Sonoran, or restricted to nearctic; *pert.* post-glacial age with continental type of climate.

bossed,—bosselated, umbonate.

bosselated (bös'elätéd) *a.* [M.E. *bosse*, knob.] Covered with knobs.

bosset (bös'ët) *n.* [M.E. *bosse*, knob.] The beginning of horn formation in deer in the first year.

bostryx (bös'tríks) *n.* [Gk. *bostrychos*, curl.] A helicoid cyme, cymose inflorescence with blooms on only one side of axis.

Botallo's duct [L. *Botallo*, Italian surgeon]. Ductus arteriosus, a small blood vessel representing sixth gill arch and connecting pulmonary with systemic arch.

botany (böt'áni) *n.* [Gk. *botane*, pasture.] The branch of biology dealing with plants; phytology.

bothrenchyma (bōthréng'kīmā) *n.* Gk. *bothros*, pit; *engchyma*, infusion.] A plant tissue formed of pitted ducts.

bothridium (bōthrid'ium) *n.* [Gk. *bothros*, trench; *idion*, dim.] A muscular cup-shaped outgrowth from scolex of tape-worms; a phyllidium.

bothronic (bōth'rion'ik) *a.* [Gk. *bothros*, pit.] *Appl.* seta arising

from the bottom of a pit in the integument.

bothrium (bōth'riūm) *n.* [Gk. *bothros*, trench.] A sucker; a sucking groove in scolex of tape-worms.

botryoidal (bōtrioid'äl) *a.* [Gk. *botrys*, bunch of grapes; *eidos*, form.] In the form of a bunch of grapes; *appl.* tissue of branched canals surrounding enteric canal in leeches; botryoid.

botryose (bōt'riōs) *a.* [Gk. *botrys*, bunch of grapes.] Racemose; botryoidal.

botuliform (bōt'ulifōrm) *a.* [L. *botulus*, sausage; *forma*, form.] Sausage-shaped; allantoid.

bouillon (booyōng) *n.* [F. *bouillon*, broth.] An infusion or broth, containing watery extract of meat, also peptone, for the cultivation of bacteria.

bouquet (bookä', book'ä) *n.* [F. *bouquet*, nosegay.] Arrangement of chromosomes in loops with their ends near one side of nuclear wall during zygotene and pachytene in some organisms; bunch of muscles and ligaments connected with the styloid process of the temporal bone.

bourrelet (boor'elä) *n.* [F. *bourrelet*, circular pad.] Poison gland associated with sting in ants.

bouton (bootōng) *n.* [F. *bouton*, bud.] Terminal bulb of arborisation of an axon; labellum, in Hymenoptera.

Bowman's capsule [Sir W. Bowman, English histologist]. The vesicle of a renal tubule; capsula glomeruli.

Bowman's glands,—serous glands in corium of olfactory mucous membrane.

Bowman's membrane,—anterior elastic membrane of cornea.

braccate (bräk'ät) *a.* [L. *braccæ*, breeches.] Having additional feathers on legs or feet, *appl.* birds.

brachelytrous (bräkēl'itrūs) *a.* [Gk. *brachys*, short; *elytron*, sheath.] Having short wing-covers.

brachia (brăk'îă) *n. plu.* [L. *brachium*, arm.] The arms; two spirally coiled structures, one at each side of mouth, in Brachiopoda; cerebellar peduncles; white lateral bands of culiculi of corpora quadrigemina. *Sing.* brachium.

brachial (brăk'îăl) *a.* [L. *brachium*, arm.] *Pert.* arm; arm-like.

brachialis (brăkiă'lîs) *n.* [L. *brachialis*, *pert.* arm.] A flexor muscle of the forearm, from lower half of front of humerus to coronoid process of ulna; brachialis anticus.

brachiate (bră'kiăt) *a.* [L. *brachium*, arm.] Branched; having opposite paired branches on alternate sides.

brachidia (brăkid'îă) *n. plu.* [Gk. *brachion*, arm; *idion*, *dim.*] Calcareous skeleton supporting brachia in certain Brachiopoda.

brachiferous (brăkîf'ërûs), **brachigerous** (brăkîj'ërûs) *a.* [L. *brachium*, arm; *ferre*, *gerere*, to carry.] Branched.

brachiocephalic (brăk'îökëfăl'îk, -sëf-) *a.* [Gk. *brachion*, arm; *kephale*, head.] *Pert.* arm and head; *appl.* artery, veins.

brachiocubital (brăk'îöku'bitäl) *a.* [L. *brachium*, arm; *cubitum*, forearm.] *Pert.* arm and forearm.

brachiolaria (brăkiölä'rîă) *n.* [L. *brachiolum*, small arm.] A larval stage in metamorphosis of some starfishes.

brachiole (bră'kiöl) *n.* [L. *brachiolum*, small arm.] A pinnule-like structure on ambulacral margin in Blastoidea.

brachiorachidian (brăk'îörăkid'îän) *a.* [Gk. *brachion*, arm; *rhachis*, spine.] *Pert.* arm and spine.

brachioradialis (brăk'îörădiă'lîs) *n.* [L. *brachium*, arm; *radius*, ray.] The supinator longus muscle of forearm.

brachium (brăk'îüm) *n.* [L. *brachium*, arm.] Arm or branching structure; upper limb of vertebrates; a bundle of fibres connecting cerebellum to cerebrum or to pons. *Plu.* brachia.

brachyblast,—brachyplast, *q.v.*

brachycephalic (brăk'îkëfăl'îk, -sëf-) *a.* [Gk. *brachys*, short; *kephale*, head.] Short-headed; with cephalic index of over eighty; *cf.* dolichocephalic.

brachycerous (brăkis'ërûs) *a.* [Gk. *brachys*, short; *keras*, horn.] Short-horned; with short antennae.

brachycnemic (brăk'îknë'mîk) *a.* [Gk. *brachys*, short; *kneme*, tibia.] *Appl.* arrangement of mesenteries of Zoantharia where the sixth proto-cneme is imperfect.

brachydactyly (brăk'îdăk'tîli) *n.* [Gk. *brachys*, short; *daktylos*, digit.] Brachydactylous condition, viz. having digits abnormally short.

brachydont (brăk'îdönt) *a.* [Gk. *brachys*, short; *odontos*, tooth.] *Appl.* molar teeth with low crowns.

brachymeiosis (brăk'îmiö'sîs) *n.* [Gk. *brachys*, short; *meion*, smaller.] A third karyokinetic or second reduction division, as in asci; meiosis involving only one division.

brachyodont,—brachydont, *q.v.*

brachyurous,—brachyural, *q.v.*

brachyplast (brăk'îplăst) *n.* [Gk. *brachys*, short; *plastos*, formed.] A short branch or spur bearing leaf tufts, occurring with normal branches on the same plant.

brachypleural (brăk'îploö'räl) *a.* [Gk. *brachys*, short; *pleuron*, side.] With short pleura or side plates.

brachypodous (brăkip'ödûs) *a.* [Gk. *brachys*, short; *pous*, foot.] With short legs, or stalk.

brachypterous (brăkip'tërûs) *a.* [Gk. *brachys*, short; *pteron*, wing.] With short wings.

brachysclereid (brăk'îsklë'rëid) *n.* [Gk. *brachys*, short; *skleros*, hard; *eidos*, form.] A stone cell.

brachysm (brăk'îsm) *n.* [Gk. *brachys*, short.] Dwarfism in plants caused by shortening of internodes.

brachystomatous (brăk'îstöm'ătûs) *a.* [Gk. *brachys*, short; *stoma*, mouth.] With short proboscis; *appl.* certain insects.

brachytic (brāk'it'ík) *a.* [Gk. *brachytes*, shortness.] Dwarfish, *appl.* plants; exhibiting or *pert.* brachysm.

brachytmea (brāk'itmē'mä) *n.* [Gk. *brachys*, short; *tmea*, segment, from *imegein*, to cut.] Truncated condition or appearance; a cell which ruptures, releasing a gemma, as in bryophytes.

brachyural (brāk'iu'räl) *a.* [Gk. *brachys*, short; *oura*, tail.] Having short abdomen usually tucked in below thorax, *appl.* certain crabs.

brachyuric (brāk'iu'rík) *a.* [Gk. *brachys*, short; *oura*, tail.] Short-tailed.

bract (bräkt) *n.* [L. *bractea*, thin plate of metal.] A floral leaf; a modified leaf in whose axil a flower arises; a hydrophyllium in Siphonophora; distal exite of sixth appendage of Apus.

bract scales,—small scales developed directly on axis of cones; *cf.* ovuliferous scales.

bracteal (brāk'tēäl) *a.* [L. *bractea*, thin metal plate.] *Pert.* a bract.

bracteate (brāk'tēät) *a.* [L. *bractea*, thin metal plate.] Having bracts.

bracteiform (brāk'teiförm) *a.* [L. *bractea*, thin metal plate; *forma*, form.] Like a bract.

bracteolate (brāk'teölät) *a.* [L. *bractea*, thin metal plate.] *Appl.* flowers with bracteoles.

bracteole (brāk'teöl) *n.* [L. *bractea*, thin metal plate.] Secondary bract at base of flower; bractlet.

bracteose (brāk'teös) *a.* [L. *bractea*, thin metal plate.] With many bracts.

bractlet,—bracteole.

bradyauxesis (bräd'ioüksé'sis) *n.* [Gk. *bradys*, slow; *auxesis*, growth.] Relatively slow growth; growth of a part at a slower rate than that of the whole, *opp.* tachyauxesis.

bradygenesis (bräd'tjén'ēsís) *n.* [Gk. *bradys*, slow; *genesis*, descent.] Retarded development, in phylogeny, *opp.* tachygenesis.

bradytelic (bräditél'ík) *a.* [Gk. *bradys*, slow; *telos*, fulfilment.] Evolving at a rate slower than the standard rate, *opp.* tachytelic; *cf.* horotelic.

brain (brän) *n.* [A.S. *braegen*, brain.] Centre of nervous system; mass of nervous matter in vertebrates at anterior end of spinal cord, lying in cranium; in invertebrates, supraoesophageal or suprapharyngeal ganglia.

brain sand,—granular bodies of calcium and ammonium and magnesium phosphates, occurring in pineal gland and pia mater; corpora arenacea; acervulus cerebri.

brain stem,—the mid-brain, pons, and medulla oblongata.

branch gaps,—gaps in the vascular cylinder of a main stem, subtending branch-traces.

branch traces,—the vascular bundles connecting those of a main stem to those of a branch.

branchia (bräng'kiä) *n.*, **branchiae** (bräng'kiē) *plu.* [L. *branchiae*, gills.] Gill, gills.

branchiac (bräng'kiäk), **branchial** (bräng'kiäl) *a.* [Gk. *branchia*, gills.] *Pert.* gills.

branchial arch,—one of the bony or cartilaginous arches on side of the pharynx posterior to hyoid arch, and supporting gill bars.

branchial grooves,—outer pharyngeal grooves or visceral clefts, *q.v.*

branchiate (bräng'kiät) *a.* [Gk. *branchia*, gills.] Having gills.

branchicolous (bräng'kiök'ölüs) *a.* [L. *branchiae*, gills; L. *colere*, to inhabit.] Parasitic on fish gills; *appl.* certain crustaceans.

branchiferous,—branchiate.

branchiform (bräng'ki förm) *a.* [L. *branchiae*, gills; L. *forma*, shape.] Gill-like.

branchihyal (bräng'kihi'äl) *n.* [Gk. *branchia*, gills; *hyooides*, T-shaped.] An element of a branchial arch.

branchiocardiac (bräng'kiökär'diäk) *a.* [Gk. *branchia*, gills; *kardia*, heart.] *Pert.* gills and heart; *appl.*

- vessel given off ventrally from ascidian heart; *appl.* vessels conveying blood from gills to pericardial sinus in certain crustaceans.
- branchiomere** (bräng'kiömēr) *n.* [Gk. *branchia*, gills; *meros*, part.] A branchial segment.
- branchiomic**, — *pert.* branchiomerous; *appl.* muscles derived from gill arches.
- branchiopallial** (bräng'kiöpāl'iäl) *a.* [Gk. *branchia*, gills; *L. pallium*, mantle.] *Pert.* gill and mantle of molluscs.
- branchiostegal** (bräng'kiös'tägäl) *a.* [Gk. *branchia*, gills; *stega*, roof.] With or *pert.* a gill cover; *appl.* membrane, rays.
- branchiostege** (bräng'kiöstēj') *n.* [Gk. *branchia*, gills; *stega*, roof.] The branchiostegal membrane.
- branchiostegite** (bräng'kiös'tējīt) *n.* [Gk. *branchia*, gills; *stega*, roof.] Expanded lateral portion of carapace forming gill cover in certain Crustacea.
- branchiome** (bräng'kīrēm) *n.* [L. *branchiae*, gills; *remus*, oar.] A branchiate limb; locomotory and respiratory limb of Branchiopoda.
- brand** (bränd) *n.* [A.S. *beornan*, to burn.] A burnt appearance on leaves, caused by rust and smut fungi.
- brand spore**,—a thick-walled spore of Ustilaginales; uredospore of Uredinales.
- bregma** (bräg'mä) *n.* [Gk. *bregma*, fore-part of head.] That part of skull where frontals and parietals meet; intersection of sagittal and coronal sutures.
- brephic** (brēf'ik) *a.* [Gk. *brephikos*, childish.] *Appl.* a larval phase preceding that of adult form; neanic.
- brevicaudate** (brēv'ikó'dät) *a.* [L. *brevis*, short; *cauda*, tail.] With a short tail.
- brevifoliate** (brēv'ifō'lliät) *a.* [L. *brevis*, short; *folium*, leaf.] Having short leaves.
- brevilingual** (brēv'illing'gwäl) *a.* [L.

- brevis*, short; *lingua*, tongue.] With short tongue.
- breviped** (brēv'ipēd) *a.* [L. *brevis*, short; *pes*, foot.] Having short legs; *appl.* certain birds.
- brevipennate** (brēv'ipēn'ät) *a.* [L. *brevis*, short; *penna*, feather.] With short wings.
- brevirostrate** (brēv'irös'trät) *a.* [L. *brevis*, short; *rostrum*, beak.] With short beak or rostrum.
- brevissimus oculi**, — obliquus inferior, shortest muscle of eye.
- bridge corpuscle**,—desmosome, *q.v.*
- Broca's area** [*P. Broca*, French surgeon]. Parolfactory area of brain.
- Broca's gyrus**,—left inferior frontal gyrus, speech centre in cerebral cortex.
- brochidodrome** (brökid'ödröm) *a.* [Gk. *brochos*, loop; *dromein*, to run.] *Appl.* veins in leaves when they form loops within the blade.
- brochonema** (brökönē'mä) *n.* [Gk. *brochos*, loop; *nema*, thread.] The spireme in loops to the number of chromosome pairs to be formed.
- bromatium** (brömā'shiüm) *n.* [Gk. *broma*, food.] A swelling on a fungus cultivated by ants, and serving as food.
- bronchi** (bröng'ki) *n. plu.* [Gk. *brongchos*, windpipe.] Tubes connecting trachea with lungs. *Sing.* bronchus.
- bronchia** (bröng'kiä) *n. plu.* [Gk. *brongchos*, windpipe.] The subdivisions or branches of each bronchus.
- bronchial** (bröng'kiäl) *a.* [Gk. *brongchos*, windpipe.] *Pert.* bronchi.
- bronchiole** (bröng'kiöl) *n.* [Gk. *brongchos*, windpipe.] A small terminal branch of bronchi.
- bronchopulmonary** (bröng'köpül'mönäri) *a.* [Gk. *brongchos*, windpipe; *L. pulmo*, lung.] *Pert.* bronchi and lungs.
- bronchotracheal** (bröng'köträ'kēäl) *a.* [Gk. *brongchos*, windpipe; *L. trachea*, trachea.] *Pert.* bronchi and trachea.

bronchovesicular (bröng'kövësik'ü-lär) *a.* [Gk. *brongchos*, windpipe; *L. vesicula*, little sac.] *Pert.* bronchial tubes and lung cells.

bronchus,—*sing.* of bronchi.

brood bud,—a spore of certain types of sporangia; a soredium; a bulbil.

brood cells,—gonidia, *q.v.*

brood pouch,—a sac-like cavity in which eggs or embryos are placed; a space formed by overlapping plates attached to bases of thoracic limbs in certain Crustacea.

brown body,—a brown, rounded mass of compacted degenerate organs in some polyzoa; nephrocyte in ascidians.

brown funnels,—a single pair of organs on dorsal aspect of posterior end of pharynx, in Amphioxus; atrio-coelomic funnels; brown canals.

Brownian movements [*R. Brown*, Scottish botanist]. The passive vibratory movements of fine granules when suspended in a fluid.

Bruch's membrane [*C. W. L. Bruch*, German anatomist]. The basal membrane, inner layer of choroid; lamina basalis.

Brunner's glands [*J. C. Brunner*, Swiss anatomist]. Small tubuloracemose glands containing a proteolytic enzyme, in submucous coat of small intestine; duodenal glands.

brush cell,—echinidium.

bryology (brïöl'öjt) *n.* [Gk. *bryon*, moss; *logos*, discourse.] The science dealing with mosses, also with liverworts; muscology.

bryophyte (brï'öfit) *n.* [Gk. *bryon*, moss; *phyton*, plant.] Any of the mosses, or liverworts.

bryozoon (brï'özö'ön) *n.* [Gk. *bryon*, moss; *zoon*, animal.] A polyzoon, so named from moss-like appearance.

B-substance,—intermedin, *q.v.*

buccae (bük'ë) *n. plu.* [L. *bucca*, cheek.] The cheeks.

buccal (bük'äl) *a.* [L. *bucca*, cheek.] *Pert.* the cheek or mouth.

buccinator (bük'sinä'tör) *n.* [L. *buccinator*, trumpeter.] A broad thin muscle of the cheek.

buccolabial (bük'ölä'bäl) *a.* [L. *bucca*, cheek; *labium*, lip.] *Pert.* mouth cavity and lips.

buccolingual (bük'öläng'gwäl) *a.* [L. *bucca*, cheek; *lingua*, tongue.] *Pert.* cheeks and tongue.

bucconasal (bük'önä'zäl) *a.* [L. *bucca*, cheek; *nasus*, nose.] *Pert.* cheek and nose; *appl.* membrane closing posterior end of olfactory pit.

buccopharyngeal (bük'öfärin'jéal) *a.* [L. *bucca*, cheek; Gk. *pharyngx*, throat.] *Pert.* cheeks and pharynx; *appl.* membrane and fascia.

bud (büd) *n.* [M.E. *budde*, bud.] A rudimentary shoot, or flower; a gemma, *q.v.*

budding (büd'ing) *n.* [M.E. *budde*, bud.] The production of buds; reproduction by development of one or more outgrowths or buds which may or may not be set free, in plants and many primitive animals; artificial propagation by insertion of a bud within the bark of another plant.

buffer (bü'tër) *n.* [O.F. *bufte*, blow.] *Appl.* salt solution which minimises changes in pH when an acid or alkali is added; *appl.* genes controlling the action of an allelomorph, *i.e.* polygenes; *appl.* cells, conidia formed in a chain, as in certain Phycomycetes.

bufotoxins (bü'fötök'sinz) *n. plu.* [L. *bufo*, toad; Gk. *toxikon*, poison.] Toad venom, as bufotoxin, $C_{34}H_{46}O_{10}$, and bufonin, $C_{34}H_{54}O_2$.

bulb (bülb) *n.* [L. *bulbus*, globular root.] A specialised underground bud with thick fleshy leaves; a part resembling a bulb; a bulb-like dilatation; basal part of intermittent organ in spiders; the medulla oblongata.

bulbar (bü'l'bär) *a.* [L. *bulbus*, globular root.] *Pert.* a bulb or bulb-like part; *pert.* medulla oblongata.

bulbiferous (bülbif'erüs) *a.* [L. *bulbus*, bulb; *ferre*, to carry.] Bulb-bearing.

bulbil (bül'bil) *n.* [L. *bulbus*, bulb.] A fleshy axillary bud which may fall and produce a new plant, as in some lilies; aerial bulb; any small bulb-shaped structure or dilatation.

bulbocavernosus (bül'bökävrñö'sūs) *n.* [L. *bulbus*, bulb; *cavernosus*, cavernous.] A muscle of perinacum, ejaculator urinae in the male; sphincter of vagina.

bulbonuclear (bül'bönū'kleär) *a.* [L. *bulbus*, bulb; *nucleus*, kernel.] *Pert.* medulla oblongata and nuclei of cranial nerves.

bulbo-urethral (bül'böürē'thräl) *a.* [L. *bulbus*, bulb; Gk. *ourethra*, urethra.] *Appl.* two racemose glands, Cowper's or Méry's glands, opening into bulb of male urethra; also *appl.* the greater vestibular glands, Bartholin's glands, in the female.

bulbous (bül'būs) *a.* [L. *bulbus*, bulb.] Like a bulb; developing from a bulb; having bulbs.

bulbus (bül'būs) *n.* [L. *bulbus*, bulb.] A bulb; swollen base of stipe in agarics; the knob-like part found in connection with various nerves; a dilatation of base of aorta.

bulla (bool'ä) *n.* [L. *bulla*, bubble.] *Appl.* rounded prominence formed by bones of ear, tympanic bulla; *appl.* prominence of middle ethmoidal air cells; *appl.* structure in head of certain parasitic copepods, becoming extruded and attached to gill-filament of fish.

bullate (bool'ät) *a.* [L. *bulla*, bubble.] Blistered-like; puckered like a savoy-cabbage leaf.

bulliform (bool'iförm) *a.* [L. *bulla*, bubble; *forma*, shape.] Bubble-shaped; *appl.* thin-walled cells which cause rolling, folding, or opening of leaves by turgor changes.

bundle-sheath,—a layer of large parenchymatous cells surrounding vascular tissue of leaf-vein.

bunodont (bü'nödönt) *a.* [Gk. *bounos*, mound; *odous*, tooth.] Having molar teeth with low conical cusps.

bunoid (bü'noid) *a.* [Gk. *bounos*, mound; *eidos*, form.] *Appl.* cusps of cheek-teeth, low and conical.

bunolophodont (bü'nölöf'ödönt) *a.* [Gk. *bounos*, mound; *lophos*, crest; *odous*, tooth.] Between bunodont and lophodont in structure, *appl.* cheek-teeth.

bunoselenodont (bü'nösēlē'nödönt) *a.* [Gk. *bounos*, mound; *selene*, moon; *odous*, tooth.] Having internal cusps bunoid, external selenoid; *appl.* cheek-teeth.

bursa (bür'sä) *n.* [L. *bursa*, purse.] A sac-like cavity; a sac with viscid fluid to prevent friction at joints.

bursa copulatrix,—a genital pouch of various animals.

bursa entiana,—the short duodenum in Chondropterygii.

bursa Fabricii,—a sac opening into dorsal part of posterior region of cloaca in birds, and usually degenerating during adolescence.

bursicule (bür'sikül) *n.* [L. *dim.* of *bursa*, purse.] A small sac.

buttress-roots,—branch roots given off above ground, arching away from stem before entering soil, forming additional props.

butyrinase (bü'tirinäś) *n.* [L. *butyrum*, butter.] An enzyme occurring in blood serum.

byssal (bis'äl) *a.* [Gk. *byssos*, fine flax.] *Pert.* the byssus.

byssogenous (bisöj'ënüs) *a.* [Gk. *byssos*, fine flax; *genos*, birth.] Byssus-forming; *appl.* glands.

byssoid (bis'oid) *a.* [Gk. *byssos*, fine flax; *eidos*, shape.] Resembling a byssus; formed of fine threads; byssaceous.

byssus (bis'üs) *n.* [Gk. *byssos*, fine flax.] The tuft of strong filaments secreted by a gland of certain bivalve molluscs, by which they become attached; the stalk of certain fungi.

C

cacogenesis (kāk'öjēn'ēsís) *n.* [Gk. *kakos*, bad; *genesis*, descent.] Inability to hybridise; kakogenesis.

cacogenic (kāk'ōjēn'ik) *a.* [Gk. *kakos*, bad; *genos*, birth.] Dysgenic, *q.v.*

cacuminous (kākū'mīnūs) *a.* [L. *cacumen*, peak.] With a pointed top; *appl.* trees.

cadophore (kād'ōfōr) *n.* [Gk. *kados*, cask; *pherein*, to bear.] A dorsal bud-bearing outgrowth in certain tunicates.

caducibranchiate (kādū'sibrāng'-kiāt) *a.* [L. *caducus*, falling; *branchiae*, gills.] With temporary gills.

caducous (kādū'kūs) *a.* [L. *caducus*, falling.] *Pert.* parts that fall off early, *e.g.* calyx, stipules; fugacious; *cf.* deciduous.

caeca,—*plu.* of caecum.

caecal (sē'kāl) *a.* [L. *caecus*, blind.] Ending without outlet; *appl.* stomach with cardiac part prolonged into blind sac; *pert.* caecum.

caecum (sē'kūm) *n.* [L. *caecus*, blind.] A blind diverticulum or pouch from some part of alimentary canal.

caecum cupulare,—the closed apical end of the cochlear canal.

caecum vestibulare,—The closed lower end of the cochlear duct.

Caenogaea (sē'nōjē'ā) *n.* [Gk. *kainos*, recent; *gaia*, earth.] A zoogeographical region which includes the Nearctic, Palearctic, and Oriental regions; *cf.* Eogaea; also Cainogaea, Kainogaea.

caenogenesis (sē'nōjēn'ēsīs) *n.* [Gk. *kainos*, recent; *genesis*, origin.] The non-phylogenetic processes in development of an individual; development of transitory adaptations in early stages of an individual.

caenogenetic (sē'nōjēnēt'ik) *a.* [Gk. *kainos*, recent; *genesis*, origin.] Of recent origin.

Caenozoic (sēnōzō'ik) *a.* [Gk. *kainos*, recent; *zoe*, life.] *Pert.* age of mammals, geological era from Mesozoic to recent times; Tertiary and Quaternary periods; also Cainozoic, Cenozoic, Kainozoic.

caespitose (sēs'pītōs) *a.* [L. *caespes*, turf.] *Pert.* turf; having low,

closely matted stems; growing densely in tufts; caespitulose, caespitose.

caisson (kā'sōn) *n.* [F. *caisson*, coffer.] Box-like arrangement of longitudinal muscle fibres in Lumbricidae.

calamistrum (kāl'āmīs'trūm) *n.* [L. *calamistrum*, curling-iron.] A comb-like structure on metatarsus of certain spiders.

calamus (kāl'āmūs) *n.* [L. *calamus*, reed.] A hollow reed-like stem without nodes; the quill of a feather; calamus scriptorius, the tip of posterior part of floor of fourth ventricle.

calcaneus (kāl'kā'nēūs) *n.* [L. *calx*, heel.] The heel; large bone or os calcis of tarsus which forms heel; calcaneum; process on metatarsus of birds.

calcar (kāl'kâr) *n.* [L. *calcar*, spur.] A hollow prolongation or tube at base of sepal or petal; spur-like process on leg or wing of birds; tibial spine in insects; process of calcaneus which supports web between leg and tail in bats; prehallux of frog; internal bony plate strengthening neck of femur; calcar avis, eminence in posterior part of lateral ventricle.

calcarate (kāl'kārāt) *a.* [L. *calcar*, spur.] Spurred; *appl.* petal, corolla.

calcareous (kāl'kār'ēūs) *a.* [L. *calcararius*, limy.] Limy; growing on soil derived from decomposition of calcareous rocks; *pert.* limestone.

calcariform (kāl'kār'ifōrm) *a.* [L. *calcar*, spur; *forma*, shape.] Spurlike.

calcarine (kāl'kārīn) *a.* [L. *calcar*, spur.] *Pert.* calcar avis; *appl.* fissure extending to hippocampal gyrus, on medial surface of cerebral hemisphere.

calceiform,—calceolate.

calceolate (kāl'sēōlāt) *a.* [L. *calceolus*, small shoe.] Slipper-shaped; *appl.* flowers.

calcicole (kāl'sikōl) *n.* [L. *calx*, lime; *colere*, to dwell.] A plant which thrives in soils rich in calcium salts; calcipete, calciphile.

- calciophyte, gypsophyte. *a.* Calci-colous.
- calciferol**,—vitamin D₂, occurring in fish liver oils, egg yolk, milk, etc., and conserving body calcium and phosphorus; antirachitic vitamin; isomeric with ergosterol from which it is formed by a series of photochemical reactions; C₂₈H₄₄O.
- calciferous** (käl'sif'ērūs) *a.* [L. *calx*, lime; *ferre*, to carry.] Containing or producing lime salts.
- calcific** (käl'sif'ik) *a.* [L. *calx*, lime; *facere*, to make.] Producing lime salts; *appl.* part of oviduct forming egg-shell in reptiles and birds.
- calcification** (käl'sifikā'shūn) *n.* [L. *calx*, lime; *facere*, to make.] The deposition of lime salts in tissue; the process of accumulation of lime salts in soil development.
- calcifuge** (käl'sifūj) *n.* [L. *calx*, lime; *fugere*, to flee.] A plant which thrives only in soils poor in calcium carbonate; calciophobe.
- calcigerous**,—calciferous.
- calcipete** (käl'sipēt) *n.* [L. *calx*, lime; *petere*, to go towards.] A calcicole, *q.v.*; a calciophil plant.
- calciphile**,—calciophyte.
- calciophobe**,—calcifuge.
- calciophyte** (käl'sifit) *n.* [L. *calx*, lime; Gk. *phyton*, plant.] A plant which thrives only on calcareous soils; calcicole, calcipete, calci-phil, gypsophyte.
- calcivorous** (käl'siv'örūs) *a.* [L. *calx*, lime; *vorare*, to devour.] *Appl.* plants which live on limestone.
- calcospherites** (käl'kösfē'rits) *n. plu.* [L. *calx*, lime; *sphaera*, globe.] Concentrically laminated granules of calcium carbonate in Malpighian tubes of some insects, in cells associated with fat-body in certain larval Diptera.
- calicle**,—calycle, calyculus, *q.v.*
- caligate** (käl'igāt) *a.* [L. *caliga*, boot.] Sheathed; veiled; peronate, *q.v.*; laminiplantar, *q.v.*
- calines** (kälēnz) *n. plu.* [Gk. *kalein*, to summon.] Plant hormones influencing growth of specific parts, as of root, stem, or leaf.
- callosal** (kälō'sāl) *a.* [L. *callosus*, hard.] *Pert.* corpus callosum.
- callose** (käl'ös) *n.* [L. *callum*, hard skin.] An occasional carbohydrate or periodic component of plant cell walls, as on sieve-plates. *a.* Having callosities.
- callosity** (kälōs'itī) *n.* [L. *callositas*, hardness.] Hardened and thickened area on skin, or on bark.
- callosum**,—corpus callosum, *q.v.*
- callow** (käl'ō) *n.* [A.S. *calu*, bald.] A newly hatched worker ant. *a.* Unfledged.
- callus** (käl'ūs) *n.* [L. *callum*, hard skin.] Tissue that forms over cut or damaged plant surface; deposit of callose on sieve-plates; small hard outgrowth at base of spikelet or of floret, in some grasses; a growth of shell-like material within umbilicus of shell; a mesonotal swelling in some insects; callosity.
- caloricity** (käl'öris'itī) *n.* [L. *calere*, to be warm.] In animals, the power of developing and maintaining a certain degree of heat.
- calorie** (käl'ōri) *n.* [L. *calere*, to be warm.] Amount of heat required to raise temperature of one gramme of water one degree centigrade (small calorie); one large calorie equals one thousand small calories.
- calorigenic** (käl'örijēn'ik) *a.* [L. *calor*, heat; *genere*, to beget.] Promoting oxygen consumption and heat production; calorifacient.
- calotte** (kälöt') *n.* [F. *calotte*, skull-cap.] An outer cell group or polar cap in Dicyemidae, for adhesion to kidney of Cephalopoda; a retractile disc with sensory cilia, in larval Bryozoa; lid of an ascus.
- caltrop** (käl'tröp) *n.* [A.S. *coltraeppe*, thistle.] A sponge spicule with four rays so disposed that any three being on the ground the fourth projects vertically upwards; also calthrops.
- calvaria** (kälvä'riä) *n.* [L. *calvaria*, skull.] The dome of the skull.
- calx** (kälks) *n.* [L. *calx*, lime, heel.] Lime; calcaneus, *q.v.*

calycanthem (kāl'ikán'thēmi) *n.* [Gk. *kalyx*, calyx; *anthemon*, flower.] Abnormal development of parts of calyx into petals.

calyces,—*plu.* of calyx.

calyciflorous (kāl'isiflō'rūs) *a.* [L. *calyx*, calyx; *flos*, flower.] *Appl.* flowers in which stamens and petals are adnate to the calyx.

calyciform (kāl'sifōrm) *a.* [L. *calyx*, calyx; *forma*, shape.] Calyx-like in shape.

calycine (kāl'isīn) *a.* [L. *calyx*, calyx.] *Pert.* a calyx; cup-like.

calycle (kāl'iki) *n.* [L. *calyculus*, little calyx.] An epicalyx; a cup-shaped cavity in a coral; a theca in a hydroid; calyculus; calicle.

calyculus (kāl'ik'ulūs) *n.* [L. *calyculus*, little calyx.] Cup-shaped or bud-shaped structure; calycle.

calyculus gustatorius,—a taste-bud or taste-bulb, an ovoid buccal sense organ composed of gustatory cells supported and surrounded by sustentacular cells.

calyculus ophthalmicus,—optic cup, formed by invagination of the optic bulb and developing into the retina.

calymma,—*kalymma*, *q.v.*

calypter (kāl'iptēr) *n.* [Gk. *kalyptos*, hidden.] Antitegula or modified alula covering haltere in certain Diptera; calypteron.

calyptoblastic (kāl'iptōblās'tik) *a.* [Gk. *kalyptos*, hidden; *blastos*, bud.] *Pert.* hydroids in which gonophore is enclosed in a gonotheca.

calyptobranchiate (kāl'iptōbrāng'-kiāt) *a.* [Gk. *kalyptos*, hidden; *branchia*, gills.] With gills not visible from exterior.

calyptopsis (kāl'iptōp'sis) *n.* [Gk. *kalyptos*, hidden; *opsis*, sight.] A larva with short-stalked eyes, as of some arthropods.

calyptra (kāl'ip'trā) *n.* [Gk. *kalyptra*, covering.] Tissue enclosing developing sporogonium in liverworts; remains of archegonium which surround apex of capsule in mosses; neck of archegonium in prothallus

of some pteridophytes; root-cap; *cf.* calyptrogen.

calyptrate (kāl'ip'trāt) *a.* [Gk. *kalyptra*, covering.] *Appl.* caducous calyx separating from its lower portion or from thalamus; operculate; *appl.* Diptera with halteres hidden by squamae.

calyptrogen (kāl'ip'trōjēn) *n.* [Gk. *kalyptra*, covering; *gennaein*, to produce.] The special layer of cells lying at apex of growing root and giving origin to root-cap.

calyptron (kāl'ip'trōn) *n.* [Gk. *kalyptra*, covering.] The squama of Calyptrae; calypter.

calyx (kāl'iks) *n.* [Gk. *kalyx*, calyx.] The outer whorl of floral leaves; cup-like portion of pelvis of kidney; theca of certain hydroids; cup-like body of crinoids; cup or head of pedunculate bodies in insects.

cambial (kām'biāl) *a.* [L. *cambium*, change.] *Pert.* cambium.

cambiform (kām'bifōrm) *a.* [L. *cambium*, change; *forma*, shape.] Similar to cambium cells.

cambiogenetic (kām'biōjēnēt'ik) *a.* [L. *cambium*, change; Gk. *genesis*, origin.] *Appl.* cells which produce cambium.

cambium (kām'biūm) *n.* [L. *cambium*, change.] The tissue from which secondary growth arises in stems and roots.

Cambrian (kām'brīān) *a.* [L. *Cambria*, Wales.] *Pert.* earliest period, or system of rocks, of Palaeozoic era.

cameration (kāmērā'shūn) *n.* [L. *cameratio*, vaulting.] Division into a large number of separate chambers.

camerostome (kām'eröstōm') *n.* [L. *camera*, chamber; Gk. *stoma*, mouth.] Hollow in anterior part of podosoma, for reception of gnathostoma in Acarina.

campaniform (kämpān'ifōrm) *a.* [L.L. *campana*, bell; *forma*, shape.] Bell- or dome-shaped; *appl.* sensilla.

campanula Halleri [*Dim.* of L.L. *campana*, bell; *A. von Haller*, Swiss anatomist]. Expansion of

- falciform process at lens in many fishes.
- campanulate** (kāmpān'ūlāt) *a.* [*Dim.* of L.L. *campana*, bell.] Bell-shaped; *appl.* corolla.
- campodeiform** (kāmpō'dēifōrm) *a.* [Gk. *kampe*, caterpillar; *eidos*, form; L. *forma*, shape.] *Appl.* larva resembling a Campodea; thysanuriform.
- camptodrome** (kāmp'tōdrōm) *a.* [Gk. *kamptos*, flexible; *dromos*, course.] *Pert.* leaf venation in which secondary veins bend forward and anastomose before reaching margin.
- camptotrichia** (kāmp'totrikyā) *n. plu.* [Gk. *kamptos*, flexible; *thrix*, hair.] Jointed dermal fin-rays in certain primitive fishes.
- campylodrome** (kāmp'pilodrōm) *a.* [Gk. *kampylos*, curved; *dromos*, course.] *Appl.* leaf with veins converging at its tip; acrodrome.
- campylospermous** (kāmp'pilōspēr'mūs) *a.* [Gk. *kampylos*, curved; *sperma*, seed.] *Appl.* seeds with groove along inner face.
- campyloptropous** (kāmp'pilōt'rōpūs) *a.* [Gk. *kampylos*, curved; *trope*, turning.] *Pert.* ovules in which nucellus and embryo-sac are bent so that micropyle points almost back to placenta.
- canalicular** (kānālik'ūlār) *a.* [L. *canaliculus*, small channel.] *Pert.* canals, or canaliculi.
- canalicular apparatus**,—the Golgi bodies, regarded as a system of canals.
- canaliculus** (kānālik'ūlūs) *n.* [L. *canaliculus*, small channel.] One of the small canals containing cell-processes of bone-corpuscles and connecting lacunae in Haversian system; small channel for passage of nerves through various bones.
- canaliform** (kānāl'ifōrm) *a.* [L. *canalis*, canal; *forma*, shape.] Canal-like.
- cancellous** (kān'sēlūs) *a.* [L. *cancellus*, latticed.] Consisting of slender fibres and lamellae, which join to form a reticular structure; cancellated; *appl.* inner, more spongy, portion of bony tissue; *appl.* anterior portion of cuttle-bone.
- cancerisocial** (kāng'krīśō'shāl) *a.* [L. *cancer*, crab; *socius*, ally.] *Appl.* commensals with crabs.
- canine** (kānin', kā'nīn) *n.* [L. *caninus*, *pert.* dog.] The tooth next to incisors. *a. Pert.* canine tooth, or to a fossa and eminence on anterior surface of maxilla.
- caninus** (kānī'nūs) *n.* [L. *caninus*, canine.] Muscle from canine fossa to angle of mouth; levator anguli oris.
- cannon bone**,—bone supporting limb from hock to fetlock, enlarged and fused metacarpals or metatarsals; in birds, the tarsometatarsus.
- canopy** (kān'ōpi) *n.* [Gk. *konopeion*, curtained bed.] Topmost layer of leaves, twigs, and branches of forest trees, or of other woody plants.
- canthal** (kān'thāl) *a.* [Gk. *kanthos*, corner of eye.] *Pert.* canthus; *appl.* a scale in certain reptiles.
- cantharidin** (kānthār'idīn) *n.* [*Cantharidae*, blister-beetles, from Gk. *kantharos*.] Poison from accessory glands of genital tract and blood of blister-beetles; $C_{10}H_{12}O_4$.
- canthus** (kān'thūs) *n.* [Gk. *kanthos*, corner of eye.] The angle where upper and lower eyelids meet; commissura palpebrarum.
- capillary** (kāpil'ārī) *a.* [L. *capillus*, hair.] Hair-like; *appl.* moisture held between and around particles of soil. *n.* One of minute thin-walled vessels which form networks in various parts of body, *e.g.* blood, lymph, or biliary capillaries.
- capillitium** (kāp'ilit'iūm, kāp'ilish'iūm) *n.* [L. *capillus*, hair.] A protoplasmic network of elaters or filaments embedding spores within sporangia of certain fungi.
- capitate** (kāp'itāt) *a.* [L. *caput*, head.] Enlarged or swollen at tip; gathered into a mass at apex, as compound stigma, some inflorescences; *appl.* a bone, os capitatum.

capitatum (kāpītā'tūm) *n.* [L. *caput*, head.] The third carpale; os magnum.

capitellum (kāp'itēl'ūm) *n.* [*Dim.* of L. *caput*, head.] A capitulum or articular protuberance at end of a bone.

capitulum (kāpīt'ūlūm) *n.* [L. *capitulum*, small head.] A knob-like swelling at end of a bone, *e.g.* on humerus for articulation with radius; part of cirripede body enclosed in mantle, *opp.* peduncle; swollen end of hair or tentacle; enlarged end of insect proboscis, or antenna; exsert part of head in ticks; part of column above parapet in sea-anemones; spherical apothecium containing a powdery mass of spores, in certain lichens; spherical cell at inner end of manubrium in Characeae; head or anthodium, an inflorescence of sessile flowers or florets crowded together on a receptacle and usually surrounded by an involucre.

capreolate (kāprē'ōlāt, kāp'rēōlāt) *a.* [L. *capreolus*, tendril.] Supplied with tendrils; tendril-shaped.

caprification (kāp'rifikā'shūn) *n.* [L. *caprificus*, wild fig-tree.] Pollination of flowers of fig-tree by Chalcid insects.

capsular (kāp'sūlār) *a.* [L. *capsula*, little box.] Like or *pert.* a capsule; *appl.* dry, dehiscent, many-seeded fruits, as capsule, follicle, legume, silicula, siliqua.

capsule (kāp'sūl) *n.* [L. *capsula*, little box.] A sac-like membrane enclosing an organ; thickened slime layer surrounding certain bacteria; any closed box-like vessel containing spores, seeds, or fruits; sporogonium, in Bryophyta; a superior, one or more celled, many-seeded, dehiscent fruit; membrane surrounding nerve-cells of sympathetic ganglia.

capsuliferous (kāp'sūlīf'ērūs) *a.* [L. *capsula*, little box; *ferre*, to carry.] With, or forming, a capsule; capsuligerous, capsulogenous.

captacula (kāptāk'ūlā) *n. plu.* [L. *captare*, to lie in wait for.] Exsertile

filamentous tactile organs near mouth of Scaphopoda.

caput (kāp'ūt) *n.* [L. *caput*, head.] Head; knob-like swelling at apex; peridium of certain fungi.

caput caecum coli,—former name of caecum.

carapace (kār'āpās) *n.* [Sp. *carapacho*, covering.] A chitinous or bony shield covering whole or part of back of certain animals.

carbohydrates (kār'bōhī'drāts) *n. plu.* [L. *carbo*, coal; Gk. *hydor*, water.] Compounds of carbon, hydrogen, and oxygen, aldehydes or ketones constituting sugars, or condensation products thereof.

carbon dioxide (kār'bōn diōk'sīd) *n.* [L. *carbo*, coal; Gk. *di-*, two; *oxys*, sharp.] Carbonic acid gas, a heavy, colourless gas present in the atmosphere, assimilated by plants and produced by decomposition of organic substances; CO₂.

carbonic anhydrase,—an enzyme, present in erythrocytes, which catalyses the formation of carbonic acid by water and carbon dioxide, and also the decomposition of carbonic acid.

Carboniferous (kār'bōnīf'ērūs) *a.* [L. *carbo*, coal; *ferre*, to carry.] *Pert.* period of late Palaeozoic era including formation of coal measures.

carcerule,—carcerulus.

carcerulus (kārsēr'ūlūs) *n.* [L. *carcer*, prison.] A superior, dry, many-celled fruit, with indehiscent one- or few-seeded carpels cohering by united styles to a central axis.

carcinology (kār'sīnōl'ōjī) *n.* [Gk. *karkinos*, crab; *logos*, discourse.] The study of Crustacea.

cardia (kār'diā) *n.* [Gk. *kardia*, stomach.] The opening between oesophagus and stomach.

cardiac (kār'diāk) *a.* [Gk. *kardiakos*, *pert.* heart, stomach.] *Pert.*, near, or supplying heart; *appl.* cycle, etc.; *pert.* anterior part of stomach.

cardiac impulse,—motion caused by rapid increase in tension of ventricle.

cardinal (kâr'dînál) *a.* [L. *cardo*, hinge.] *Pert.* that upon which something depends or hinges ; *pert.* hinge of bivalve shell, or to *cardo* of insects ; *appl.* points for plant growth : minimum, optimum, and maximum temperatures or temperature ranges.

cardinal sinuses and veins,—veins uniting in Cuvier's duct, persistent in most fishes, embryonic in other vertebrates.

cardines,—*plu.* of *cardo*.

cardioblast (kâr'diöbläst) *n.* [Gk. *kardia*, heart ; *blastos*, bud.] One of embryonic cells destined to form walls of heart.

cardiobranchial (kâr'diöbräng'kiäl) *a.* [Gk. *kardia*, heart ; *branchia*, gills.] *Appl.* enlarged posterior basibranchial cartilage ventral to heart in elasmobranchs.

cardo (kâr'dö) *n.* [L. *cardo*, hinge.] The hinge of a bivalve shell ; basal sclerite of maxilla in insects, itself divided into eucardo and paracardo.

carina (käre'nä, käri'nä) *n.* [L. *carina*, keel.] A keel-like ridge on certain bones, as of breast-bone of birds ; median dorsal plate of a barnacle ; the two coherent anterior petals of a leguminous flower ; ridge on bracts of certain grasses.

carinal (käri'näl) *a.* [L. *carina*, keel.] Like or *pert.* a keel or ridge ; *appl.* median strand of xylem passing from stem to leaf ; *appl.* canals in protoxylem beneath ridges of stem in Equisetales ; *appl.* dots or puncta on keel of diatom valves ; *appl.* cartilage at the bifurcation of the trachea.

carinate (kär'inät) *a.* [L. *carina*, keel.] Having a ridge or keel.

cariniform (käri'n'iförm) *a.* [L. *carina*, keel ; *forma*, shape.] Keel-shaped.

carnassial (kärnäs'iäl) *a.* [L. *caro*, flesh.] *Pert.* cutting teeth of Carnivora, fourth premolar above and first molar below,—in upper the protocone is reduced, in lower the metaconid.

carnivorous (kärniv'örüs) *a.* [L. *caro*, flesh ; *vorare*, to devour.] Flesh-eating ; *appl.* Carnivora, and to certain plants which feed on entrapped insects.

carotenase (kär'ötēnäs) *n.* [L. *carota*, carrot.] A liver enzyme which activates vitamin A formation from carotenes.

carotene (kär'ötēn) *n.* [L. *carota*, carrot.] A yellow pigment synthesised by plants and present in milk, liver oils, egg yolk, etc. ; provitamin A ; $C_{40}H_{56}$.

carotenoids (kär'ötēnoïdz) *n. plu.* [L. *carota*, carrot ; Gk. *eidos*, form.] Pigments occurring in plants and some animal tissues, and including carotene, xanthophylls, and other fat-soluble pigments.

carotid (käröt'id) *a.* [Gk. *karos*, heavy sleep.] *Pert.* chief arteries in the neck ; *appl.* arch, ganglion, nerve, etc.

carotid bodies,—two small masses of chromaffin cells associated with carotid sinus, and being part of system for controlling oxygen content and acidity of blood ; glomera carotica.

carotiform (kär'ötiförm) *a.* [L. *carota*, carrot ; *forma*, shape.] Shaped like a carrot ; *appl.* certain cystidia.

carotin,—carotene, *g.v.*

carotinoids,—carotenoids, *g.v.*

carpal (kâr'päl) *n.* [L. *carpus*, wrist.] A wrist bone. *a. Pert.* wrist.

carpel (kâr'pël) *n.* [Gk. *karpos*, fruit.] A division of the seed-vessel ; a simple pistil. *Plu.* Sporophylls which carry megasporangia ; megasporophylls.

carpellary (kâr'pëläri) *a.* [Gk. *karpos*, fruit.] *Pert.* carpels ; containing a carpel or carpels.

carpellate,—having carpels.

carpocerite (kâr'pösërit) *n.* [L. *carpus*, wrist ; Gk. *keras*, horn.] Fifth antennal joint in certain Crustacea.

carpogenic (kârpöjën'ik) *a.* [Gk. *karpos*, fruit ; *gennaëin*, to produce.] *Appl.* those cells in red algae which

form the carpogonium ; *appl.* cell : oogonium of archicarp ; carpo-genous.

carpogonium (kâr'pögō'nium) *n.* [Gk. *karpōs*, fruit ; *gonos*, birth.] Lower portion of procarp, which contains female nucleus, in some thallophytes ; female gametangium in red algae.

carpolith (kâr'pōlith) *n.* [Gk. *karpōs*, fruit ; *lithos*, stone.] A fossil fruit.

carpometa carp (kâr'pōmētākâr'pūs) *n.* [Gk. *karpōs*, wrist ; *meta*, after.] Portion of wing skeleton formed by fusion of carpal and metacarpal bones, in birds.

carpomycetous (kâr'pōmīsē'tūs) *a.* [Gk. *karpōs*, fruit ; *mykēs*, fungus.] Producing fruit-bodies, *appl.* higher fungi.

carpophagous (kâr'pōf'ägūs) *a.* [Gk. *karpōs*, fruit ; *phagein*, to eat.] Feeding on fruit.

carpophore (kâr'pōfōr) *n.* [Gk. *karpōs*, fruit ; *pherein*, to bear.] Part of flower axis to which carpels are attached ; stalk of sporocarp.

carpophyll (kâr'pōfil) *n.* [Gk. *karpōs*, fruit ; *phyllon*, leaf.] A carpel ; a megasporophyll.

carpophyte (kâr'pōfit) *n.* [Gk. *karpōs*, fruit ; *phyton*, plant.] A thallophyte which forms sporocarps.

carpopodite (kâr'pōpōdit) *n.* [Gk. *karpōs*, wrist ; *pous*, foot.] The third joint of endopodite in certain Crustacea ; patella in spiders.

carposoma (kâr'pōsō'mā) *n.* [Gk. *karpōs*, fruit ; *soma*, body.] Non-reproductive part of a carpophore ; an immature carpophore.

carposperm (kâr'pōspērm) *n.* [Gk. *karpōs*, fruit ; *sperma*, seed.] The fertilised oosphere in certain Thallophyta.

carposporangium (kâr'pōspōrān'jūm) *n.* [Gk. *karpōs*, fruit ; *sporos*, seed ; *anggeion*, vessel.] The terminal cells of filaments developed from fertilised carpogonium in some Thallophyta.

carpospore (kâr'pōspōr) *n.* [Gk. *karpōs*, fruit ; *sporos*, seed.] A spore of those formed at end of filaments

developed from carpogonium ; one of the spores in the cystocarp of Rhodophyceae.

carposporophyte (kâr'pōspōrōfit) *n.* [Gk. *karpōs*, fruit ; *sporos*, seed ; *phyton*, plant.] The diploid generation of red algae, which consists of filaments forming carpospores at their apices.

carpostome (kâr'pōstōm) *n.* [Gk. *karpōs*, fruit ; *stoma*, mouth.] Opening for emission of spores from the cystocarp of red algae.

carpus (kâr'pūs) *n.* [L. *carpus*, wrist.] The wrist ; region of fore-limb between forearm and metacarpus.

cartilage (kâr'tilēj) *n.* [L. *cartilago*, cartilage.] Gristle, a translucent, bluish-white tissue, firm and elastic, found generally in connection with bones ; cartilaginous structure.

cartilaginous (kâr'tilāj'inūs) *a.* [L. *cartilagineus*, gristly.] Gristly, consisting of or *pert.* cartilage ; resembling consistency of cartilage, as cortex of certain fungi.

caruncle (kār'wēn'kl) *n.* [L. *caruncula*, small piece of flesh.] A naked, fleshy excrescence ; small conical body at inner junction of upper and lower eyelids, caruncula lacrimalis ; one of the carunculae hymenales, rounded vestiges of ruptured hymen ; a fleshy outgrowth on head of certain birds, and on certain caterpillars ; a little horny elevation at end of beak of embryo chicks ; piston-like structure within acetabulum of dibranchiate Cephalopoda ; sucking-disc on tarsi of certain mites ; one of outgrowths from various regions of testa of a seed, a strophiole.

caryo,—also *karyo*, *q.v.*

caryolite (kâr'iōlit) *n.* [Gk. *karyon*, nut ; *lytikos*, loosing.] A nucleated muscle fragment undergoing phagocytosis in development of insects.

caryopsis (kâr'iōp'sis) *n.* [Gk. *karyon*, nut ; *opsis*, appearance.] A superior, one-celled, one-seeded, indehiscent fruit with a thin dry membranous pericarp inseparably united with the seed ; grain.

casein (kā'sēin) *n.* [L. *caseus*, cheese.] A phosphoprotein of milk, formed from caseinogen (casein in U.S.A.) by action of rennin; paracasein (U.S.A.).

Casparian band [*R. Caspary*, German botanist]. A cork- or wood-like strip encircling radial walls of endodermis cells; Casparian strip.

cassideous (kāsid'ēūs) *a.* [L. *cassis*, helmet.] Helmet-like.

caste (kāst) *n.* [L. *castus*, pure.] One of the distinct forms found among certain social insects.

castrate (kāś'trāt) *a.* [L. *castrare*, to castrate.] *Pert.* flowers from which androecium has been removed. *n.* An animal deprived of functional gonads. *v.* To deprive of testes; to gonadectomise; to inhibit development of gonads.

cata-,—also *kata-*, *q.v.*

catacorolla (kā'tākōrōl'ā) *n.* [Gk. *kata*, against; L. *corolla*, little wreath.] A secondary corolla.

catadromous (kā'tād'rōmūs) *a.* [Gk. *kata*, down; *dramein*, to run.] Tending downward; having branches arising from lower side of pinnae, in ferns; having first set of nerves in a frond segment given off on basal side of midrib; *appl.* fishes which migrate from fresh to salt water annually, *opp.* anadromous.

catalase,—an enzyme occurring in plant and animal tissues, which decomposes hydrogen peroxide into water and oxygen.

catalepsis (kā'tālēp'sis) *n.* [Gk. *katalepsis*, seizure.] A so-called shamming—dead reflex, as in spiders; *cf.* kataplexy.

catallact,—coenobium, homoplast.

catalysis (kā'tāl'isīs) *n.* [Gk. *katalysis*, dissolution.] Acceleration or retardation of reaction due to presence of a catalyst.

catalyst (kā'tālist) *n.* [Gk. *katalysis*, dissolving.] An agent, *e.g.* an enzyme, which can accelerate or retard, or initiate, a reaction and apparently remains unchanged; catalysor.

catamenia (kā'tāmē'niā) *n.* [Gk. *kata*, according to; *men*, month.] Periodic discharge from uterus; menses.

catapetalous (kā'tāpēt'ālūs) *a.* [Gk. *kata* over; *petalon*, leaf.] Having petals united with the base of monadelphous stamens.

cataphoresis (kā'tāfōrē'sis) *n.* [Gk. *katapherein*, to carry down.] Migration of particles in suspension, as of living cells, under influence of electric current, the rate depending on voltage; electrophoresis.

cataphyll (kā'tāfil) *n.* [Gk. *kata*, down; *phyllon*, leaf.] Simple form of leaf on lower part of plant, as cotyledon, bud-scale, scale-leaf; cataphyllary leaf. *Opp.* hypso-phyll.

cataphyllary (kā'tāfil'ārī) *a.* [Gk. *kata*, down; *phyllon*, leaf.] *Appl.* rudimentary or scale-like leaves which act as covering of buds.

cataplasia (kā'tāp'lāsīs) *n.* [Gk. *kata*, downward; *plasis*, moulding.] Regression or decline following the mature period or metaplasia.

catapleurite (kā'tāploor'it) *n.* [Gk. *kata*, down; *pleura*, side.] Thoracic pleurite between anapleurite and trochantin, as in certain Thysanura; coxopleurite.

catelectrotonus (kā'tēlēk'trōt'ōnūs, kā't'ēlēktrōt'ōnūs) *n.* [Gk. *kata*, down; *elektron*, amber; *tonos*, tension.] Increase in irritability of a nerve under influence of non-polarising electric current; katelectrotonus.

catena (kā'tē'nā) *n.* [L. *catena*, chain.] A sequence of soil types which is repeated in a corresponding sequence of topographical sites, as between ridges and valleys of a region; a bast fibre in Heliocarpus.

catenation (kā'tēnā'shūn) *n.* [L. *catenatus*, chained.] End-to-end arrangement of chromosomes; ring formation of alternating paternally and maternally derived chromosomes; a chain, as of diatom frustules.

catenoid (kātē'noid) *a.* [L. *catena*, chain; Gk. *eidōs*, form.] Chain-like; *appl.* certain protozoan colonies.

catenular (kātēn'ulār), *a.* [L. *catenula*, little chain.] Chain-like; *appl.* colonies of bacteria, colour-markings on butterfly wings, shells, etc.

catenulate,—forming a chain-like series.

catenuliform,—catenoid, catenular.

caterpillar (kāt'ērpil'ār) *n.* [L. *cattus*, cat; L. *pilosus*, hairy.] Young worm-like insect larva, particularly of Lepidoptera; *eruca*.

cathammal (kāth'āmāl) *a.* [Gk. *kathamma*, anything tied.] *Appl.* plates forming endoderm lamella in some Coelenterata.

catkin (kāt'kīn) *n.* [A.S. *catkin*, little cat.] A spike with unisexual flowers and pendulous rachis; amentum.

cauda (kō'dā) *n.* [L. *cauda*, tail.] A tail, or tail-like appendage; posterior part of an organ, *e.g.* cauda equina, cauda epididymis; a tube at posterior end of abdomen of certain insects, suggesting presence of a further segment.

caudad (kō'dād) *adv.* [L. *cauda*, tail; *ad*, toward.] Towards tail region or posterior end.

caudal (kō'dāl) *a.* [L. *cauda*, tail.] Of or *pert.* a tail, *e.g.* caudal fin.

caudate (kō'dāt) *a.* [L. *cauda*, tail.] Having a tail, *e.g.* caudate nucleus; *appl.* a lobe of the liver.

caudatolenticular (kōdā'tölēntik'-ulār) *a.* [L. *cauda*, tail; *lens*, lentil.] *Appl.* caudate and lenticular nuclei of corpus striatum.

caudex (kō'dēks) *n.* [L. *caudex*, tree trunk.] The axis or stem of a woody plant, as of tree-ferns, palms, etc.

caudicle (kō'dīkl) *n.* [*Dim.* of L. *cauda*, tail.] Stalk of pollinium in orchids.

caudihæmal (kō'dihē'māl) *a.* [L. *cauda*, tail; Gk. *haima*, blood.] *Appl.* posterior lower portion of a sclerotome.

caudineural (kōdinū'rāl) *a.* [L. *cauda*, tail; Gk. *neuron*, nerve.]

Appl. posterior upper portion of a sclerotome.

caudostyle (kō'döstīl) *n.* [L. *cauda*, tail; Gk. *stylos*, column.] A terminal structure in certain parasitic amoebæ.

caudotibialis (kō'dötībīā'lis) *n.* [L. *cauda*, tail; *tibia*, shin.] A muscle connecting caudal vertebrae and tibia, as in Phocidae.

caul (kōl) *n.* [M.E. *calle*, covering.] An enclosing membrane; amnion; omentum.

caulescent (kōlēs'ēnt) *a.* [L. *caulis*, stalk.] With leaf-bearing stem above ground.

caulicle (kōl'īkl) *n.* [L. *cauliculus*, small stalk.] A small or rudimentary stem; axis of a young seedling.

caulicolous (kōlk'ölūs) *a.* [L. *caulis*, stalk; *colere*, to inhabit.] *Appl.* fungi growing on plant-stems.

cauliflory (kōl'iflō'ri) *n.* [L. *caulis*, stalk; *flos*, flower.] Condition of having flowers arising from axillary buds on the main stem or older branches; cauliflorous habitus.

cauliform (kōl'ifōrm) *a.* [L. *caulis*, stalk; *forma*, shape.] Stem-like.

cauligenous (kōlij'ēnūs) *a.* [Gk. *kaulos*, stem; *genos*, birth.] Borne on the stem.

cauline (kō'līn) *a.* [L. *caulis*, stalk.] *Pert.* stem; *appl.* leaves growing on upper portion of a stem; *appl.* vascular bundles not passing into leaves.

caulis (kō'lis) *n.* [L. *caulis*, stalk.] The stem, in herbaceous plants.

caulocaline (kōl'ōkālēn') *n.* [Gk. *kaulos*, stem; *kalein*, to summon.] A plant hormone, possibly elaborated in roots, which stimulates growth of stem.

caulocarpous (kō'lōkār'pūs) *a.* [Gk. *kaulos*, stem; *karpos*, fruit.] With fruit-bearing stem.

caulocystidium (kōl'ōsīstīd'īūm) *n.* [Gk. *kaulos*, stalk; *kystis*, bag; *idion*, *dim.*] One of the cystidium-like structures on stipe of certain Basidiomycetes.

caulome (kō'lōm) *n.* [Gk. *kaulos*,

- stem.] The stem structure of a plant as a whole.
- caulomer** (kôl'ômër) *n.* [Gk. *kaulos*, stem; *meros*, part.] A secondary axis in a sympodium.
- caulotaxis** (kôl'ôták'sis) *n.* [Gk. *kaulos*, stem; *taxis*, arrangement.] The arrangement of branches on a stem; caulotaxy.
- caulotrichome** (kô'lôtrik'ôm) *n.* [Gk. *kaulos*, stem; *trichoma*, growth of hair.] Hair-like or filamentous outgrowths on a stem; caulocystidia.
- cavernicolous** (käv'ërnîk'ölüs) *a.* [L. *caverna*, cavern; *colere*, to dwell.] Cave-inhabiting.
- cavernosus** (käv'ërnô'süs) *a.* [L. *cavernosus*, chambered.] Full of cavities; hollow, or resembling a hollow; *appl.* tissue, nerve, arteries.
- cavicorn** (käv'îkôrn) *a.* [L. *cavus*, hollow; *cornu*, horn.] Hollow-horned; *appl.* certain ruminants.
- cavum** (käv'vüm) *n.* [L. *cavus*, hollow.] The lower division of concha caused by origin of helix; cavity of mouth, larynx, long bones, etc.; any hollow or chamber.
- C-cells**,—cells with non-granular cytoplasm in islets of Langerhans, possibly giving rise to A-cells.
- cecal**,—caecal, *q.v.*
- cecidium** (sësid'ïüm) *n.* [Gk. *kekis*, inky juice, gall.] An excrescence on plants, caused by fungi, mites, or insects; gall, gall-nut.
- cecum**,—caecum, *q.v.*
- celiac**,—coeliac, *q.v.*
- cell** (sël) *n.* [L. *cella*, compartment.] A small cavity or hollow; a loculus; a unit mass of protoplasm, usually containing a nucleus or nuclear material; originally, the cell wall; space between veins of insect wings.
- cellifugal** (sëlif'ügäl) *a.* [L. *cella*, cell; *fugere*, to flee.] Moving away from a cell.
- cellipetal** (sëlip'ëtäl) *a.* [L. *cella*, cell; *petere*, to seek.] Moving towards a cell.
- cell lineage**,—the derivation of a tissue or part from a definite blastomere of embryo.
- cell organ**,—a part of a cell having a special function, as a centrosome; organoid.
- cell plate**,—equatorial thickening of spindle fibres from which partition wall arises during division of plant cells.
- cell sap**,—the more fluid ground substance of the cell.
- cellular** (sël'ülär) *a.* [L. *cellula*, small cell.] *Pert.* or consisting of cells.
- cellulase** (sël'üläs) *n.* [L. *cellula*, small cell.] An enzyme which hydrolyses cellulose, occurring in bacteria and fungi.
- cellulin** (sël'ülin) *n.* [L. *cellula*, little cell.] A carbohydrate found in constrictions of hyphae.
- cellulose** (sël'ülös) *n.* [L. *cellula*, small cell.] A carbohydrate forming main part of plant cell walls, also found in tests of tunicates; (C₆H₁₀O₅)_n.
- cell-wall**,—investing portion of cell.
- celo**,—coelo-, *q.v.*
- cement** (sëmënt') *n.* [L. *caementum*, mortar.] A substance chemically and physically allied to bone, investing parts of teeth; crusta petrosa; a uniting substance secreted by certain animals.
- cementocytes**,—cells resembling osteocytes, in lacunae of cement of teeth.
- cenanthy**,—kenanthy, *q.v.*
- cenchrus** (sëng'krüs) *n.* [Gk. *kengchros*, millet.] A pale-coloured area on mesothorax of saw-flies.
- cenenchyma**,—coenenchyma.
- ceno**,—see caeno-, coeno-.
- censer mechanism**,—method of seed distribution by which seeds are jerked out from fruit by high wind.
- centradenia** (sën'tradë'nîä) *n.* [Gk. *kentron*, centre; *aden*, gland.] The type of siphonophore colony in Disconectae.
- central** (sën'träl) *a.* [L. *centrum*, centre.] Situated in the centre; *pert.* a vertebral centrum. *n.* A bone in wrist or ankle, situated between proximal and distal rows.

central body,—centrosome, *q.v.*

central cylinder,—stele, *q.v.*

centric (sĕn'trik) *a.* [L. *centrum*, centre.] *Appl.* leaves which are cylindrical or terete; having a centromere.

centrifugal (sĕntrif'ügāl) *a.* [L. *centrum*, centre; *fugere*, to flee.] *Appl.* compact cymose inflorescences having youngest flowers towards outside; *appl.* nerves transmitting impressions from nerve centre to parts supplied by nerve.

centriole (sĕn'triōl) *n.* [L. *centrum*, centre.] The central particle of the centrosome; the centrosome itself.

centripetal (sĕntrip'ĕtāl) *a.* [L. *centrum*, centre; *petere*, to seek.] *Appl.* racemose inflorescences having youngest flowers at apex; *appl.* nerves transmitting impressions from peripheral extremities to nerve centres.

centripetal canals,—blind canals growing from circular canal backwards towards apex of bell in certain Trachomedusae.

centro-acinar (sĕn'trōās'inār) *a.* [L. *centrum*, centre; *acinus*, berry.] *Pert.* centre of an alveolus, as in pancreas.

centrodesmus (sĕn'trōdĕs'mūs) *n.* [Gk. *kentron*, centre; *desmos*, bond.] The fibril or system of fibrils temporarily connecting two centrosomes; centrodesm, centrodesmose.

centrodorsal (sĕn'trōdōr'sāl) *a.* [L. *centrum*, centre; *dorsum*, back.] *Appl.* plate in middle of aboral surface of unstalked crinoids.

centrogenous (sĕntrōj'ĕnūs) *a.* [Gk. *kentron*, centre; *gennaein*, to produce.] *Appl.* a skeleton of spicules which meet in a common centre and grow outwards.

centrolecithal (sĕn'trōlĕs'ithāl) *a.* [Gk. *kentron*, centre; *lekithos*, yolk.] With yolk aggregated in the centre, *appl.* ovum.

centromere (sĕn'trōmēr) *n.* [Gk. *kentron*, centre; *meros*, part.] The part of the chromosome located at the point lying on the equator of the

spindle at metaphase and dividing at anaphase, controlling chromosome activity; spindle-attachment region, achromite, kinetochore.

centron (sĕn'trōn) *n.* [Gk. *kentron*, centre.] Cyton, *q.v.*

centrophormium (sĕn'trōfōr'miūm) *n.* [Gk. *kentron*, centre; *phormis*, small basket.] The Golgi-bodies when in round basket-like form.

centroplasm (sĕn'trōplāzm) *n.* [Gk. *kentron*, centre; *plasma*, mould.] Substance of centrosphere; a more or less definite concentric zone round the aster in mitosis.

centroplast (sĕn'trōplāst) *n.* [Gk. *kentron*, centre; *plastos*, formed.] An extranuclear spherical body forming division centre of mitosis in certain lower organisms.

centrosome (sĕn'trōsōm) *n.* [Gk. *kentron*, centre; *soma*, body.] A cell-organ, the centre of dynamic activity in mitosis, consisting of centriole and attraction-sphere.

centrosphere (sĕn'trōsēr) *n.* [Gk. *kentron*, centre; *sphaira*, ball.] The central mass of aster and centrosome; astrosphere; attraction-sphere.

centrotaxis (sĕn'trōtāk'sis) *n.* [Gk. *kentron*, centre; *taxis*, arrangement.] Orientation of chromatin thread towards cytocentrum during leptotene stage.

centrotheca (sĕn'trōthĕ'kā) *n.* [Gk. *kentron*, centre; *theke*, case.] Idiozome, *q.v.*

centrum (sĕn'trūm) *n.* [L. *centrum*, centre.] The main body of a vertebra, from which neural and haemal arches arise; centrosome, centrosphere, *q.v.*

cephal-,—also *kephal-*.

cephalad (kĕf'ālād, sĕf-) *adv.* [Gk. *kephale*, head; L. *ad*, towards.] Towards head region or anterior end.

cephalanthium (kĕf'ālān'thiūm, sĕf-) *n.* [Gk. *kephale*, head; *anthos*, flower.] The capitulum in composite plants; anthodium.

cephaletron (kĕfālĕ'trōn, sĕf-) *n.* [Gk. *kephale*, head; *etron*, belly.] The anterior region of Xiphosura.

cephalic (kěfál'ík, sěf-) *a.* [Gk. *kephale*, head.] *Pert.* head; in head region.

cephalic index,—one hundred times maximum breadth divided by maximum length of skull.

cephalin (kěf'álin, sěf-) *n.* [Gk. *kephale*, head.] A phospholipide present in nerve fibres and egg-yolk; kephalin; an epimerite bearing trophozoites.

cephalis (kěf'ális, sěf-) *n.* [Gk. *kephalis*, little bulb.] The uppermost chamber of monaxonic shells of Radiolaria.

cephalisation (kěf'álizá'shün, sěf-) *n.* [Gk. *kephale*, head.] Increasing differentiation and importance of anterior end in animal development.

cephalon (kěf'álon, sěf-) *n.* [Gk. *kephale*, head.] The head of arthropods; head shield of trilobites.

cephalont (kěf'álon't, sěf-) *n.* [Gk. *kephale*, head.] A sporozoan about to proceed to spore-formation.

cephalopod (kěf'álopód, sěf-) *n.* [Gk. *kephale*, head; *pous*, foot.] Marine mollusc with muscular sucker-bearing arms on head region, *e.g.* cuttle-fish, octopus.

cephalopodium (kěf'álopō'diüm, sěf-) *n.* [Gk. *kephale*, head; *pous*, foot.] The head and arms constituting the head-region in cephalopods.

cephalopsin (kěfálop'sin, sěf-) *n.* [Gk. *kephale*, head; *opsis*, sight.] A photopigment resembling visual purple, in eyes of cephalopods and some other invertebrates.

cephalosporium (kěf'álospō'riüm, sěf-) *n.* [Gk. *kephale*, head; *sporos*, seed.] A globular mucilaginous mass of spores; spore ball.

cephalostegite (kěf'álos'tějít, sěf-) *n.* [Gk. *kephale*, head; *stegē*, roof.] Anterior part of cephalothoracic shield.

cephalostyle (kěf'álostil, sěf-) *n.* [Gk. *kephale*, head; *stylos*, pillar.] Anterior end of notochord enclosed in sheath, in Chondrocrania.

cephalotheca (kěf'álothē'ká, sěf-) *n.* [Gk. *kephale*, head; *theke*, case.] Head integument in insect pupa.

cephalothorax (kěf'álothō'ráks, sěf-) *n.* [Gk. *kephale*, head; *thorax*, breast.] The body-region formed by fusion of head and thorax in Arachnida and Crustacea.

cephalotrocha (kěfálot'rókā, sěf-) *n.* [Gk. *kephale*, head; *trochos*, wheel.] A turbellarian larva with eight processes round mouth.

cephalula (kěfál'ulā, sěf-) *n.* [Gk. *kephale*, head.] Free-swimming embryonic stage in certain brachiopods.

ceptor,—receptor.

cer-,—also *ker-*.

ceraceous (sērā'shūs) *a.* [L. *cera*, wax.] Waxy; cereous.

ceral (sēr'äl) *a.* [L. *cera*, wax.] *Pert.* wax; *pert.* the cere of birds.

cerata (sēr'ätä, kēr-) *n. plu.* [Gk. *keras*, horn.] Lobes or leaf-like processes acting as gills on back of nudibranch molluscs.

ceratium (sērā'shiüm) *n.* [Gk. *keration*, little horn.] A siliqua without the replum.

ceratobranchial (kēr'ätöbräng'kiäl, sēr-) [Gk. *keras*, horn; *branchia*, gills.] An element of branchial arch.

ceratohyal (kēr'ätöhi'äl, sēr-) *n.* [Gk. *keras*, horn; *hyooides*, T-shaped.] The component of hyoid arch next below epihyal.

ceratoid (sēr'ätoid, kēr'-) *a.* [Gk. *keras*, horn; *eidos*, form.] Like horn; horny; keratoid.

ceratotheca (sēr'ätöthē'ká, kēr-) *n.* [Gk. *keras*, horn; *theke*, case.] The part of the casing of an insect pupa which protects the antennae.

ceratotrachia (kēr'ätötrik'iä, sēr-) *n. plu.* [Gk. *keras*, horn; *thrix*, hair.] Horny and non-cellular actinotrichia of elasmobranchs.

cercal (sēr'käl) *a.* [Gk. *kerkos*, tail.] *Pert.* the tail; *pert.* cerci, *appl.* hairs, nerve.

cercaria (sēr'ká'riä) *n.* [Gk. *kerkos*, tail.] A heart-shaped trematode larva with tail.

cerci,—*plu.* of cercus.

cercid (sēr'sid) *n.* [Gk. *kerkis*, shuttle.] One of minute wandering cells produced by division of archaeocytes in certain sponges.

cercoid (sēr'koid) *n.* [Gk. *kerkos*, tail; *eidos*, shape.] One of paired appendages on ninth, or tenth, abdominal segment of certain insect larvae.

cercus (sēr'kūs) *n.* [Gk. *kerkos*, tail.] A jointed appendage at end of abdomen in many arthropods; appendage bearing acoustic hairs in some insects; cercopod.

cere (sēr) *n.* [L. *cera*, wax.] A swollen fleshy patch at proximal end of bill in birds; ceroma.

cerebellar (sēr'ēbēl'ār) *a.* [L. *cerebrum*, brain.] *Pert.* the cerebellum or hind-brain.

cerebellum (sēr'ēbēl'ūm) *n.* [L. *cerebrum*, brain.] The fourth division of brain, arising from differentiation of anterior part of third primary vesicle.

cerebral (sēr'ēbrāl) *a.* [L. *cerebrum*, brain.] *Pert.* the brain; *pert.* anterior part of brain or cerebral hemispheres.

cerebral organs,—chemical sense organs, paired ciliated tubes associated with dorsal ganglion and opening to exterior, in nemertines.

cerebrifugal (sērēbrif'ūgāl) *a.* [L. *cerebrum*, brain; *fugere*, to flee.] *Appl.* nerve fibres which pass from brain to spinal cord.

cerebroganglion (sēr'ēbrōgāng'glīōn) *n.* [L. *cerebrum*, brain; Gk. *ganglion*, swelling.] The supra-oesophageal ganglia of invertebrates.

cerebroid,—cerebrose.

cerebropedal (sēr'ēbrōpēd'āl) *a.* [L. *cerebrum*, brain; *pes*, foot.] *Appl.* nerve strands connecting cerebral and pedal ganglia in molluscs.

cerebrose (sēr'ēbrōs) *a.* [L. *cerebrum*, brain.] Resembling convolutions of the brain; *appl.* surface of spores, of pileus, etc.

cerebrospinal (sēr'ēbrōspī'nāl) *a.* [L. *cerebrum*, brain; *spina*, spine.] *Pert.* brain and spinal cord.

cerebrovisceral (sēr'ēbrōvis'ērāl) *a.* [L. *cerebrum*, brain; *viscera*, viscera.] *Appl.* connective joining cerebral and visceral ganglia in molluscs.

cerebrum (sēr'ēbrūm) *n.* [L. *cerebrum*, brain.] The fore-brain, arising from differentiation of first primary vesicle.

cereous (sēr'rēūs) *a.* [L. *cereus*, waxen.] Wax-like; waxy.

ceriferous (sērif'ērūs) *a.* [L. *cera*, wax; *ferre*, to carry.] Wax-producing; *appl.* organs.

cernuous (sēr'nūūs) *a.* [L. *cernuus*, with face turned downwards.] Drooping; pendulous.

ceroma (sēr'rōmā) *n.* [Gk. *keroma*, waxed surface.] The cere of birds.

cerous (sēr'rūs) *a.* [L. *cera*, wax.] *Appl.* structure resembling a cere.

certation (sērtā'shūn) *n.* [L. *certatio*, contest.] Competition in growth rate of pollen tubes of genetically different types.

cerumen (sērū'mēn) *n.* [L. *cera*, wax.] Wax-like secretion from ceruminous glands of ear; wax secreted by scale insects; wax of nest of certain bees.

cervical (sēr'vīkāl, sēr'vikāl) *a.* [L. *cervix*, neck.] *Appl.* or *pert.* structures connected with neck, as nerves, bones, blood-vessels, also to cervix or neck of an organ.

cervicum (sēr'vikūm) *n.* [L. *cervix*, neck.] The neck-region of Arthropoda.

cervix (sēr'viks) *n.* [L. *cervix*, neck.] The neck or narrow mouth of an organ, as cervix uteri.

cespitose,—caespitose, *q.v.*

cetolith (sēt'ōlith) *n.* [Gk. *ketos*, whale; *lithos*, stone.] The fused tympanic and petrosal of whales, found in deep-sea dredging.

cevitamic acid,—ascorbic acid or vitamin C.

chaeta (kē'tā) *n.* [Gk. *chaite*, hair.] A seta (*q.v.*), or bristle, as of certain worms.

chaetic (kē'tik) *a.* [Gk. *chaite*, hair.] Bristle-like, *appl.* a type of tactile sensilla in insects.

chaetiferous (kētif'ērūs) *a.* [Gk. *chaite*, hair; L. *ferre*, to bear.] Bristle-bearing; chaetigerous, setigerous.

- chaetophorous** (kētōf'ōrūs) *a.* [Gk. *chaite*, hair; *pherein*, to bear.] Bristle-bearing; *appl.* worms and certain insects.
- chaetosema** (kē'tōsēmā) *n.* [Gk. *chaite*, hair; *sema*, sign.] One of two small sensory organs located on head of certain Lepidoptera, and provided with bristles and sensory cells connected by a sheathed nerve to brain; Jordan's organ.
- chaetotaxy** (kē'tōtāk'si) *n.* [Gk. *chaite*, hair; *taxis*, arrangement.] Bristle pattern or arrangement.
- chain behaviour**,—a series of actions, each being induced by the antecedent action and being an integral part of a unified performance.
- chalaza** (kālā'zā) *n.* [Gk. *chalaza*, hail.] One of two spiral bands attaching yolk to membrane of a bird's egg; base of nucellus of ovule, from which integuments arise.
- chalaziferous** (kālāzif'erūs) *a.* [Gk. *chalaza*, hail; L. *ferre*, to bear.] *Appl.* layer of albumen surrounding yolk and continuous with chalazae.
- chalazogamy** (kālāzōg'āmī) *n.* [Gk. *chalaza*, hail; *gamos*, marriage.] Fertilisation in which the pollentube pierces chalaza of ovule; *cf.* porogamy.
- chalice** (chāl'is) *n.* [L. *calix*, goblet.] *Appl.* simple gland cells or goblet cells; a modified columnar epithelial gland cell; arms and disc of a crinoid.
- chalones** (kāl'ōnz) *n. plu.* [Gk. *chalinos*, curb.] Internal secretions which depress activity; *opp.* hormones.
- chaloneic** (kālōn'ik) *a.* [Gk. *chalinos*, curb.] Depressor, inhibitory, or restraining; *appl.* internal secretions; *opp.* hormonoid.
- chamaephyte** (kāmi'fit) *n.* [Gk. *chamai*, on the ground; *phyton*, plant.] A plant with shoots that bear dormant buds lying on or near the ground.
- chasmatoplasm** (kāz'mātōplāzm) *n.* [Gk. *chasma*, expanse; *plasma*,

- mould.] An expanded form of plasmon.
- chasmochomophyte** (kāz'mōkō'mōfit) *n.* [Gk. *chasma*, opening; *choma*, mound; *phyton*, plant.] A plant growing on detritus in rock crevices.
- chasmogamy** (kāzmōg'āmī) *n.* [Gk. *chasma*, opening; *gamos*, marriage.] Opening of a mature flower to ensure fertilisation, *opp.* cleistogamy.
- chasmophyte** (kāz'mōfit) *n.* [Gk. *chasma*, opening; *phyton*, plant.] A plant which grows in crevices of rocks; a chasmophilous plant.
- cheek** (chēk) *n.* [A.S. *céace*, cheek.] The fleshy wall of mouth in mammals; side of face; in invertebrates the lateral portions of head, as fixed and free cheeks of trilobites.
- cheilocystidium** (ki'lōsistīd'ium) *n.* [Gk. *cheilos*, edge; *kystis*, bag; *idion*, dim.] A cystidium in hymenium at edge of lamella; *cf.* pleurocystidium.
- cheilotrichome**,—cheilocystidium.
- cheiropterygium** (kirōptērīj'ium) *n.* [Gk. *cheir*, hand; *pteryx*, wing.] The pentadactyl limb typical of higher vertebrates.
- chela** (kē'lā) *n.* [Gk. *chele*, claw.] The claw borne on certain limbs of Crustacea and Arachnoidea; a short sponge spicule with talon-like projections at one or each end.
- chelate** (kē'lāt) *a.* [Gk. *chele*, claw.] Claw-like or pincer-like; cheliform; cheliforous, *q.v.*
- chelicerae** (kēlīs'ērē) *n. plu.* [Gk. *chele*, claw; *keras*, horn.] Anterior chelate or sub-chelate appendages of Arachnoidea; also cheliceres.
- cheliforous** (kēlīf'erūs) *a.* [Gk. *chele*, claw; L. *ferre*, to bear.] Supplied with chelae or claws.
- cheliform** (kē'līfōrm) *a.* [Gk. *chele*, claw; L. *forma*, shape.] Claw-like; *appl.* appendages.
- cheliped** (kē'līpēd) *n.* [Gk. *chele*, claw; L. *pes*, foot.] A claw-bearing appendage; forceps of decapod crustaceans.

chelophores (kē'lōfōrz) *n. plu.* [Gk. *chele*, claw; *pherein*, to bear.] First pair of appendages in Pycnogonida.

chemiluminescence (kēm'ilūmīnēs' ēns, -loo-) *n.* [Gk. *chemeia*, transmutation; *L. luminescere*, to grow light.] Light production at ordinary temperature during a chemical reaction, as bioluminescence, *q.v.*

chemiotaxis,—chemotaxis.

chemoreceptor,—chemoreceptor.

chemokinesis (kēm'ōkīnēs'sis) *n.* [Gk. *chemeia*, transmutation; *kinesis*, movement.] Movement, of freely motile organisms, resulting from chemical stimuli.

chemonasty (kēm'ōnās'tī) *n.* [Gk. *chemeia*, transmutation; *nastos*, close pressed.] Response to diffuse or indirect chemical stimuli.

chemoreceptor (kēm'ōrēsēp'tōr) *n.* [Gk. *chemeia*, transmutation; *L. recipere*, to receive.] A terminal organ receiving chemical stimuli.

chemoreflex (kēm'ōrē'fleks) *n.* [Gk. *chemeia*, transmutation; *L. reflectere*, to bend back.] A reflex caused by chemical stimulus.

chemostat (kēm'ōstāt) *n.* [Gk. *chemeia*, transmutation; *statos*, standing.] Any organ concerned in maintaining constancy of chemical conditions, as of hydrogen ion concentration in blood.

chemosynthesis (kēm'ōsīn'thēsis) *n.* [Gk. *chemeia*, transmutation; *syn*, with; *tithenai*, to place.] The building up of chemical compounds in organisms.

chemotaxis (kēm'ōtāk'sis) *n.* [Gk. *chemeia*, transmutation; *taxis*, arrangement.] The reaction of cells or freely motile organisms to chemical stimuli; also chemiotaxis.

chemotrophic (kēmōtrōf'ik) *a.* [Gk. *chemeia*, transmutation; *trophe*, nourishment.] Deriving nourishment from certain inorganic substances, *appl.* certain organisms without chlorophyll, as iron bacteria and sulphur bacteria.

chemotropism (kēmōt'rōpīzm) *n.* [Gk. *chemeia*, transmutation; *trope*,

turn.] Curvature of a plant or plant organ in response to chemical stimuli.

chernozem (chēr'nōzēm, chēr'nōzyōm) *n.* [Russ. *chernyi*, black; *zemlya*, soil.] Black soil, characteristic of steppe and grass land and formed under continental climatic conditions; blackearth.

chersophyte (kēr'sōfit) *n.* [Gk. *chersa*, waste places; *phyton*, plant.] A plant which grows on waste land.

chestnut soils,—dark-brown soils of semi-arid steppe-lands, fertile under adequate rainfall or when irrigated.

cheta,—chaeta, *q.v.*

chevron (shēv'rōn) *a.* [F. *chevron*, rafter, from *L. caper*, goat.] *Appl.* V-shaped bones articulating with ventral surface of spinal column in caudal region of many vertebrates.

chiasma (klāz'mā) *n.*, **chiasmata** (klāz'mātā) *plu.* [Gk. *chiasma*, cross.] A decussation of fibres, as optic chiasma; in paired chromatids, an exchange of partners in meiosis.

chiasmotypy (klāz'māti'pī) *n.* [Gk. *chiasma*, cross; *typos*, character.] A form of recombination of chromosome material in synapsis; chiasmotype, *appl.* theory that chiasmata and crossing-over are causally correlated.

chiastic (klās'tik) *a.* [Gk. *chiastos*, diagonally arranged.] Decussating; crossing; obliquely or at right angles to axis; *pert.* chiasmata.

chiastoneural (klās'tōnūrāl) *a.* [Gk. *chiastos*, diagonally arranged; *neuron*, nerve.] *Appl.* certain gastropods in which visceral nerve cords cross and form a figure 8.

chilaria (klīlā'riā) *n. plu.* [Gk. *cheilos*, lip.] Pair of processes between sixth pair of appendages in *Limulus*.

chilidium (klīlīd'ium) *n.* [Gk. *cheilos*, lip; *idion*, *dim.*] A shelly plate covering deltidial fissure in dorsal valve of certain Brachiopoda.

chimaera (klīmē'rā) *n.* [*L. chimaera*, monster.] A single organism developing from two fused rudiments

- from different individuals, or composed of tissues of two different genotypes; a mosaic; chimera.
- chimonophilous** (kīmōnōf'īlūs) *a.* [Gk. *cheimon*, winter; *philein*, to love.] Thriving or growing during winter.
- chiropterophilous** (kīrōp'tērōf'īlūs) *a.* [Gk. *cheir*, hand; *pteron*, wing; *philos*, loving.] Pollinated by agency of bats.
- chiropterygium**,—chiropterygium.
- chirotype** (kī'rōtīp) *n.* [Gk. *cheir*, hand; *typos*, pattern.] The specimen of a species designated by a manuscript name or chironym, ratified on publication as being the type specimen.
- chitin** (kī'tin) *n.* [Gk. *chiton*, tunic.] A nitrogenous carbohydrate derivative forming the skeletal substance in arthropods, also constituent of cell-wall in fungi; isotropic chitin *opp.* actinochitin.
- chitinase** (kī'tinās) *n.* [Gk. *chiton*, tunic.] An enzyme which hydrolyses chitin, in mould fungi and in digestive juice of snail.
- chlamydate** (klām'īdāt) *a.* [Gk. *chlamys*, cloak.] Supplied with a mantle.
- chlamydeous** (klāmīd'ēūs) *a.* [Gk. *chlamys*, cloak.] *Pert.* flower and envelope.
- chlamydospore** (klām'īdōspōr) *n.* [Gk. *chlamys*, cloak; *sporos*, seed.] A thick-walled resting spore of certain fungi and protozoa.
- chloragen** (klō'rājēn) *a.* [Gk. *chloros*, sandy yellow; *genos*, descent.] *Appl.* yellow cells found in connection with alimentary canal of annelids; also chloragogen.
- chloragocyte** (klō'rāgōsīt) *n.* [Gk. *chloros*, sandy yellow; *kytos*, hollow.] A chloragogen cell.
- chloragogen**,—chloragen, *q.v.*
- chloragosomes** (klō'rāgōsōms) *n. plu.* [Gk. *chloros*, sandy yellow; *soma*, body.] Yellow or brownish globules formed in chloragogen cells.
- chloranth** (klōrān'thī, klō'rānthī) *n.* [Gk. *chloros*, grass green; *anthos*, flower.] Reversion of floral leaves to ordinary green leaves.
- chlorenchyma** (klōrēng'kīmā) *n.* [Gk. *chloros*, grass green; *engchyma*, infusion.] Tissues collectively, or stem tissue, or mesophyll, containing chlorophyll.
- chloride cell**,—a columnar cell of gill filament, specialised for excretion of chlorides, in certain fishes.
- chlorocruorin** (klō'rōkroo'ōrin) *n.* [Gk. *chloros*, grass green; *L. cruor*, blood.] A green respiratory pigment occurring in blood plasma of certain worms.
- chlorofucin** (klō'rōfū'sin) *n.* [Gk. *chloros*, green; *L. fucus*, seaweed.] Chlorophyll *c*, in diatoms and brown algae; chlorophyll *γ*.
- chloroleucite**,—chloroplast.
- chlorophane** (klō'rōfān) *n.* [Gk. *chloros*, grass green; *phainein*, to appear.] A green chromophane.
- chlorophore** (klō'rōfōr) *n.* [Gk. *chloros*, grass green; *phora*, carrying.] A chlorophyll granule in Protista.
- chlorophyll** (klō'rōfil) *n.* [Gk. *chloros*, grass green; *phyllon*, leaf.] The green colouring matter found in plants and in some animals; chlorophyll *a*, $C_{55}H_{72}O_6N_4Mg$; *b*, $C_{55}H_{70}O_6N_4Mg$; *c*, or *γ* or chlorofucin, *q.v.*; *c* formerly *appl.* a mixture of chlorophyll *a* and pheophytin *a*.
- chloroplast** (klō'rōplāst), **chloroplastid** (klō'rōplās'tīd) *n.* [Gk. *chloros*, grass green; *plastos*, moulded.] A minute granule or plastid containing chlorophylls *a* and *b*, found in plant-cells exposed to light.
- chloroplast pigments**, — chlorophylls, carotene, and xanthophyll.
- chlorosis** (klō'rō'sis) *n.* [Gk. *chloros*, pallid.] Abnormal condition characterised by absence of green pigments in plants, owing to lack of light, or to magnesium- or iron-deficiency; green-sickness in humans.

chlorostatolith (klō'rōstāt'ōlith) *n.*

[Gk. *chloros*, grass green; *statos*, stationary; *lithos*, stone.] A chloroplast which moves under the influence of gravity in a statocyte; *cf.* statolith, amylostatolith.

chlorotic (klōrōt'ik) *a.* [Gk. *chloros*, pallid.] *Pert.* or affected by chlorosis.

choana (kō'ānā) *n.* [Gk. *choane*, funnel.] A funnel-shaped opening; posterior naris.

choanocyte (kō'ānōsīt) *n.* [Gk. *choane*, funnel; *kytos*, hollow.] A cell with funnel-shaped rim or collar round the base of a flagellum.

choanoid (kō'ānoid) *a.* [Gk. *choane*, funnel; *eidos*, like.] Funnel-shaped; *appl.* eye muscle, retractor bulbi, absent in snakes, birds, and higher primates.

choanosome (kō'ānōsōm) *n.* [Gk. *choane*, funnel; *soma*, body.] In sponges, the inner layer with flagellate cells.

cholangioles (kōlānj'jōlz) *n. plu.* [Gk. *chole*, bile; *anggeion*, vessel.] Terminal or interlobular biliary ducts; bile-capillaries.

cholecyst (kōl'ēsist) *n.* [Gk. *chole*, bile; *kystis*, bladder.] Gall-bladder.

cholecystokinin (kōl'ēsīs'tōkī'nin) *n.* [Gk. *chole*, bile; *kystis*, bladder; *kinein*, to move.] A duodenal hormone which induces contraction of gall-bladder and relaxation of Oddi's sphincter.

choledoch (kōl'ēdōk) *a.* [Gk. *chole*, bile; *dochos*, containing.] *Appl.* common bile duct.

cholehematin,—choloheamatin

choleic (kōlē'ik) *a.* [Gk. *chole*, bile.] *Pert.* acid contained in ox bile.

cholepyrrhin,—bilirubin.

cholerythrin,—bilirubin.

cholesterol (kōlēs'tērōl) *n.* [Gk. *chole*, bile; *stereos*, solid.] Cholesterolin, a white fatty alcohol found in protoplasm, nerve tissue, bile, yolk, and other animal substances; $C_{27}H_{46}O$.

choline (kō'līn, -ēn) *n.* [Gk. *chole*,

bile.] A crystalline base found in plants and animals, a decomposition product of lecithin; $C_8H_{18}O_4N$.

cholinergic (kōlīnēr'jik) *a.* [Gk. *chole*, bile; *ergon*, work.] *Appl.* parasympathetic nerve fibres which liberate acetylcholine from their terminations; *cf.* adrenergic.

cholinesterase,—an enzyme which hydrolyses acetylcholine into choline and acetic acid.

cholochrome (kōl'ōkrōm) *n.* [Gk. *chole*, bile; *chroma*, colour.] A bile pigment; biliphaein.

choloheamatin (kōl'ōhē'mätin) *n.* [Gk. *chole*, bile; *haima*, blood.] Phylloerythrin; choleheamatin.

cholophaein (kōl'ōfē'in) *n.* [Gk. *chole*, bile; *phaios*, dusky.] Bilirubin.

chomophyte (kō'mōfit) *n.* [Gk. *choma*, mound; *phyton*, plant.] A plant growing in detritus on rocks.

chondral (kōn'drāl) *n.* [Gk. *chondros*, cartilage.] *Pert.* cartilage.

chondric (kōn'drik) *a.* [Gk. *chondros*, cartilage.] Gristly, cartilaginous.

chondrification (kōn'drifikā'shūn) *n.* [Gk. *chondros*, cartilage; *L. facere*, to make.] Conversion into cartilage.

chondrigen (kōn'drijēn) *n.* [Gk. *chondros*, cartilage; *gennaen*, to produce.] The base matrix of all cartilaginous substance, a collagen.

chondrin (kōn'drin) *n.* [Gk. *chondros*, cartilage.] A gelatinous substance obtained from cartilage.

chondriocent (kōn'driōkōnt) *n.* [Gk. *chondros*, grain; *kontos*, pole.] A rod-like or fibrillar type of chondriosome.

chondriodieresis (kōn'driōdiēr'ēsīs) *n.* [Gk. *chondros*, grain; *dieressein*, to swing about.] Changes in mitochondria during cell division.

chondriokinesis (kōn'driōkīnēs'īs) *n.* [Gk. *chondros*, grain; *kinesis*, movement.] Division of chondriosomes in mitosis and meiosis.

chondrioma (kōndriō'mā) *n.* [Gk. *chondros*, grain.] The chondriosome content of a cell; chondriome.

- chondriomere** (kôn'driömēr) *n.* [Gk. *chondros*, grain; *meros*, part.] Plastomere, *q.v.*; cytomere, *q.v.*
- chondriomite** (kôn'driōmit) *n.* [Gk. *chondros*, grain; *mitos*, thread.] A linear type of chondriosome.
- chondrioplast** (kôn'driōplāst) *n.* [Gk. *chondros*, grain; *plastos*, formed.] A rod-like formation of reticular material; Golgi rod.
- chondriosomes** (kôn'driōsōmz) *n. plu.* [Gk. *chondros*, grain; *soma*, body.] Mitochondria, *q.v.*; numerous synonyms: *e.g.* chondriomites, chondriocents, chondriospheres, chondrioplasts.
- chondriosphere** (kôn'driōsfēr) *n.* [Gk. *chondros*, grain; *sphaira*, globe.] A spherical type of chondriosome; mitochondria which have coalesced.
- chondroblast** (kôn'drōblāst) *n.* [Gk. *chondros*, cartilage; *blastos*, bud.] A cartilage-producing cell.
- chondroclast** (kôn'drōklāst) *n.* [Gk. *chondros*, cartilage; *klastos*, broken down.] A large multinucleate cell which destroys cartilage matrix; also chondrioclast.
- chondrocranium** (kôn'drōkrā'nīūm) *n.* [Gk. *chondros*, cartilage; *kranion*, skull.] The skull when in a cartilaginous condition, either temporarily as in embryos, or permanently as in some fishes.
- chondrocyte** (kôn'drōsīt) *n.* [Gk. *chondros*, cartilage; *kytos*, hollow.] A cartilage cell.
- chondrogen**,—chondrigen.
- chondrogenesis** (kôn'drōjēn'ēsīs) *n.* [Gk. *chondros*, cartilage; *genesis*, descent.] The production or formation of cartilage.
- chondroglossus** (kôn'drōglōs'ūs) *n.* [Gk. *chondros*, cartilage; *glossa*, tongue.] An extrinsic muscle of the tongue, arising from hyoid bone, between genioglossus and hyoglossus.
- chondroid** (kôn'droid) *a.* [Gk. *chondros*, cartilage; *eidōs*, shape.] Cartilage-like; *appl.* tissue, undeveloped cartilage or pseudo-cartilage serving as support in certain invertebrates and lower vertebrates; *appl.* vesicular supporting tissue of notochord; fibrohyaline.
- chondromucoid** (kôn'drōmū'koid) *n.* [Gk. *chondros*, cartilage; *L. mucus*, mucus; *Gk. eidōs*, form.] A basophil protein which with collagen forms ground-substance of cartilage; chondromucin.
- chondrophore** (kôn'drōfōr) *n.* [Gk. *chondros*, cartilage; *pherein*, to bear.] A structure which supports the inner hinge cartilage in a bivalve shell.
- chondroseptum** (kôn'drōsēp'tūm) *n.* [Gk. *chondros*, cartilage; *L. septum*, partition.] The cartilaginous part of the septum of the nose.
- chondroskeleton** (kôn'drōskēl'ētōn) *n.* [Gk. *chondros*, cartilage; *skeleton*, dried body.] A cartilaginous skeleton.
- chondrosteous** (kōndrōs'tēus) *a.* [Gk. *chondros*, cartilage; *osteon*, bone.] Having a cartilaginous skeleton.
- chondrosternal** (kôn'drōstēr'nāl) *a.* [Gk. *chondros*, cartilage; *sternon*, breast.] *Pert.* rib cartilages and sternum.
- chone** (kō'nē) *n.* [Gk. *chone*, funnel.] A passage through cortex of sponges, with one or more external openings, and one internal opening.
- chorda** (kōr'dā) *n.* [Gk. *chorde*, string.] Any cord-like structure; chorda dorsalis or notochord; chorda tympani, a branch of the facial nerve; chorda umbilicalis; chorda vocalis. *Plu.* chordae.
- chordacentra** (kōr'dāsēn'trā) *n. plu.* [Gk. *chorde*, string; *L. centrum*, centre.] Centra formed by conversion of chordal sheath into a number of rings; *cf.* arch-centra.
- chordae tendineae**,—tendinous cords connecting papillary muscles with valves of heart.

chordae willisii,—fibrous bands crossing superior sagittal sinus of dura mater.

chordate (kôr'dât) *a.* [Gk. *chorde*, string.] Having a notochord.

chordotonal (kôr'dôtō'nāl) *a.* [Gk. *chorde*, string; *tonos*, tone.] *Appl.* rod-like or bristle-like receptors for mechanical and sound vibrations, in various parts of body of insects.

chore (kô'rē) *n.* [Gk. *chore*, place.] An area manifesting a unity of geographical or environmental conditions; *cf.* biochore, biotope.

choreiathetose (kôriāth'ētōs) *a.* [Gk. *choreia*, dance; *athetos*, lawless.] Arrhythmic and uncoordinated; *appl.* foetal movements.

choriocapillaris (kôr'ïôkăpîl'âris, -kăp'îlă'rîs) *n.* [Gk. *chorion*, skin; L. *capillaris*, capillary.] The innermost vascular layer of choroid.

chorioid,—choroid, *q.v.*

chorion (kôr'riôn) *n.* [Gk. *chorion*, skin.] An embryonic membrane external to and enclosing the amnion; allantochorion, *q.v.*; a hardened shell covering egg of insects; outer membrane of seed.

chorion frondosum,—villous placental part of chorion.

chorion laeve,—smooth non-placental part of chorion.

chorionic (kôr'riôn'îk) *a.* [Gk. *chorion*, skin.] *Pert.* the chorion; *appl.* gonadotrophic hormone or prolan.

chorioretinal (kôr'ïôrēt'înal) *a.* [Gk. *chorion*, skin; L. *retina*, retina.] *Pert.* choroid and retina.

choripetalous (kôr'ripêt'ălūs) *a.* [Gk. *choris*, separate; *petalon*, leaf.] Having separate petals.

choriphyllous (kôr'rîfil'ūs) *a.* [Gk. *choris*, separate; *phyllon*, leaf.] Having perianth parts distinct.

chorisepalous (kôr'risép'ălūs) *a.* [Gk. *choris*, separate; F. *sépale*, sepal.] Having the sepals separate.

chorisis (kôr'risîs) *n.* [Gk. *choris*, separate.] Increase in parts of

floral whorl due to division of its primary members; deduplication.

choroid (kôr'oid) *a.* [Gk. *chorion*, skin; *eidos*, form.] *Appl.* delicate and highly vascular membranes. *n.* Layer of eye between retina and sclera.

choroidal (kôroid'ăl) *a.* [Gk. *chorion*, skin; *eidos*, form.] *Pert.* choroid.

chorology (kôröl'ôji) *n.* [Gk. *choros*, place; *logos*, discourse.] Biogeography; geographical distribution; biotopography; science of the distribution of organisms or of organs.

choronomic (kôrônôm'îk) *a.* [Gk. *choros*, place; *nomos*, law.] External, *appl.* influences of geographical or regional environment, *opp.* autonomic.

chorotypes (kôr'rôtîps) *n. plu.* [Gk. *choros*, place; *typos*, pattern.] Local types.

chresard (krēsârd') *n.* [Gk. *chresis*, use; *ardo*, I water.] Soil water available for plant growth; *cf.* echard, holard.

chroma (krô'mă) *n.* [Gk. *chroma*, colour.] The hue and saturation of a colour.

chromaffin (krô'măfin) *a.* [Gk. *chroma*, colour; L. *affinis*, related.] Chromaphil.

chromaphil (krô'măfil) *a.* [Gk. *chroma*, colour; *philein*, to love.] Stained by chromic acid or its salts when adrenaline is present; *appl.* cells forming medullary parts of suprarenal bodies; *appl.* bodies or paraganglia; chromophil, chromaffin.

chromaphobe (krô'măföb) *a.* [Gk. *chroma*, colour; *phobos*, fear.] *Appl.* non-stainable cells or tissues; chromophobe.

chromasie (krô'măsi) *n.* [Gk. *chroma*, colour.] Increase of chromatin in nucleus and formation of nucleolus; *cf.* achromasie.

chromatic (krômăt'îk) *a.* [Gk. *chroma*, colour.] Colourable by means of staining reagents; *pert.*

colour; having hue and saturation; having chromatophores.

chromatic sphere,—the sphere formed by coalescence of chromosomes after anaphase in mitosis.

chromatic threshold,—the minimal stimulus, varying with wave length of light, which induces a colour sensation.

chromaticity (krōmātis'itī) *n.* [Gk. *chroma*, colour.] Unlikeness to grey, or saturation of a colour.

chromatid (krō'mātid) *n.* [Gk. *chroma*, colour.] A component of a tetrad in meiosis; a half-chromosome between early prophase and metaphase in mitosis, or between diplotene and second metaphase in meiosis.

chromatid bridge,—a chromatid joining two centromeres during anaphase, in paracentric inversions.

chromatin (krō'mātin) *n.* [Gk. *chroma*, colour.] A substance in the nucleus which contains nucleic acid proteids, and stains with basic dyes.

chromatocyte (krō'mātōsit) *n.* [Gk. *chroma*, colour; *kytos*, hollow.] Any cell containing a pigment.

chromatogen organ,—a brownish lobed body, the axial organ of certain echinoderms.

chromatoid grains,—grains in cell-protoplasm, which stain similarly to chromatin.

chromatolysis (krō'mātōl'isis) *n.* [Gk. *chroma*, colour; *lysis*, loosing.] Disintegration of Nissl granules, as in fatigued nerve-cells; tigrolysis.

chromatophil (krō'mātōfil) *a.* [Gk. *chroma*, colour; *philein*, to love.] Staining easily; chromophilous.

chromatophore (krō'mātōfōr) *n.* [Gk. *chroma*, colour; *pherein*, to bear.] A coloured plastid of plants and animals; a colourless body in cytoplasm and developing into a leucoplast, chloroplast, or chromoplast; a pigment cell, or group of cells, which under control of the sympathetic nervous system can be altered in shape to produce a colour change.

chromatophoric (krō'mātōfōr'ik) *a.*

[Gk. *chroma*, colour; *pherein*, to bear.] Containing pigment; *pert.* chromatophores.

chromatophorotropic (krō'mātōfō'rōtrōp'ik) *a.* [Gk. *chroma*, colour; *pherein*, to bear; *trope*, turn.] *Appl.* a hormone, intermedin, secreted by pars intermedia of pituitary and causing expansion of chromatophores; *appl.* hormone of crustacean eye-stalk.

chromatophyll (krō'mātōfil) *n.* [Gk. *chroma*, colour; *phyllon*, leaf.] The colouring matter of plant-like flagellates; also chromophyll.

chromatoplasm (krō'mātōplāzm) *n.* [Gk. *chroma*, colour; *plasma*, mould.] The colour or pigment matter in cells.

chromatosome,—chromosome.

chromatospherite (krō'mātōsfēr'it) *n.* [Gk. *chroma*, colour; *sphaira*, globe.] A nucleolus, *q.v.*

chromidia (krōmid'ia) *n. plu.* [Gk. *chroma*, colour; *idion*, *dim.*] Extra-nuclear particles of chromatin, which may replace or be re-formed into nuclei; gonidia, *q.v.*

chromidial substance,—minute basophil granules containing iron, occurring in cytoplasm as chromophil or tigroid bodies.

chromidiogamy (krōmid'fōg'āmī) *n.* [Gk. *chroma*, colour; *idion*, *dim.*; *gamos*, marriage.] The union of chromidia from two conjugants.

chromidiosomes (krōmid'fōsōmz) *n. plu.* [Gk. *chroma*, colour; *idion*, *dim.*; *soma*, body.] The smallest chromatin particles of which the chromidial mass is composed.

chromiole (krō'miōl) *n.* [Gk. *chroma*, colour.] One of the minute granules of which a chromomere is composed.

chromo-argentaffin (krō'mōârjēn'tāfin) *a.* [Gk. *chroma*, colour; L. *argentum*, silver; *affinis*, related.] Staining with bichromates and silver nitrate; *appl.* flask-shaped cells in epithelium of crypts of Lieberkühn.

chromoblast (krō'mōblāst) *n.* [Gk. *chroma*, colour; *blastos*, bud.] An embryonic cell giving rise to a pigment cell.

chromocentre (krōmōsēn'tēr) *n.* [Gk. *chroma*, colour; *kentron*, centre.] The fused heterochromatic region around centromeres; fused prochromosomes.

chromocyte (krō'mōsīt) *n.* [Gk. *chroma*, colour; *kytos*, hollow.] Any pigmented cell.

chromogen (krō'mōjēn) *n.* [Gk. *chroma*, colour; *genos*, birth.] The substance which is converted into a pigment, *e.g.* by oxidation; a chromogenic organism.

chromogenesis (krō'mōjēn'ēsis) *n.* [Gk. *chroma*, colour; *genesis*, origin.] The production of colour or pigment.

chromogenic (krō'mōjēn'ik) *a.* [Gk. *chroma*, colour; *genos*, birth.] Colour-producing; *appl.* organisms, as bacteria.

chromoleucite,—chromoplast.

chromolipides (krō'mōlip'īdz) *n. plu.* [Gk. *chroma*, colour; *lipos*, fat.] The carotenoids and related pigments.

chromomere (krō'mōmēr) *n.* [Gk. *chroma*, colour; *meros*, part.] One of the chromatin granules of which a chromosome is formed, and which corresponds to an id or a gene; granular part of blood platelet, *opp.* hyalomere.

chromonema (krō'mōnē'mā) *n.* [Gk. *chroma*, colour; *nema*, thread.] A coiled or convoluted thread in prophase of mitosis; central thread in chromosome. *Plu.* chromonemata.

chromoparous (krōmōp'ārūs) *a.* [Gk. *chroma* colour; L. *parere*, to bring forth.] Having coloured excreta, *appl.* bacteria.

chromophanes (krō'mōfānz) *n. plu.* [Gk. *chroma*, colour; *phainein*, to show.] Red, yellow, and green oil globules found in retina of birds, reptiles, fishes, marsupials; any retinal pigments.

chromophil (krō'mōfil) *a.* [Gk. *chroma*, colour; *philein*, to love.] Chromaphil, chromaffin, *q.v.*; chromophilic.

chromophilous (krōmōf'īlūs) *a.* [Gk. *chroma*, colour; *philos*, loving.] Staining readily; chromatophil.

chromophobe (krō'mōfōb) *a.* [Gk. *chroma*, colour; *phobos*, fear.] Non-stainable or staining slightly; *appl.* certain cells of pituitary gland; chromaphobe.

chromophore (krō'mōfōr) *n.* [Gk. *chroma*, colour; *pherein*, to bear.] Any substance to whose presence colour in a compound is due.

chromophyll,—chromatophyll, *q.v.*

chromoplast (krō'mōplāst) *n.* [Gk. *chroma*, colour; *plastos*, moulded.] A coloured plastid or pigment body; coloured plastid other than a chloroplast; chromoplastid.

chromoproteins (krō'mōprō'tēinz) *n. plu.* [Gk. *chroma*, colour; *protos*, first.] Substances formed by combination of a protein with a pigment or chromophore.

chromosomal vesicle,—karyomere, *q.v.*

chromosome (krō'mōsōm) *n.* [Gk. *chroma*, colour; *soma*, body.] One of deeply staining bodies, the number of which is constant for the cells of a species, into which the chromatin resolves itself during karyokinesis and meiosis.

chromosome-races,—races differing in number of chromosomes or of chromosome sets.

chromosomin (krōmōsō'mīn) *n.* [Gk. *chroma*, colour; *soma*, body.] One of the protein constituents of chromosomes.

chromospire (krō'mōspīr) *n.* [Gk. *chroma*, colour; *speira*, coil.] A spireme-like thread formed from nuclear granules in haplomitosis.

chronaxie, **chronaxy** (krō'nāksī) *n.* [Gk. *chronos*, time; *axia*, value.] Latent period between electrical stimulus and muscular response; minimal excitation time required with a current of an intensity twice the threshold necessary for excitation when the duration of the stimulus is prolonged; chronaxia.

chronotropic (krōn'ōtrōpik) *a.* [Gk. *chronos*, time; *trope*, turning.] Affecting the rate of action, as accelerator and inhibitory cardiac nerves.

chrysalis (kris'älis) *n.* [Gk. *chrysalis*, gold, golden thing.] Pupa stage of certain insects.

chrysocarpous (kris'ökâr'pūs) *a.* [Gk. *chrysos*, gold; *karpos*, fruit.] With golden-yellow fruit.

chrysophanic (krisöfän'ik) *a.* [Gk. *chrysos*, gold; *phainein*, to show.] Having a golden or bright orange colour, *appl.* an acid formed in certain lichens and in leaves.

chrysophyll (kris'öfil) *n.* [Gk. *chrysos*, gold; *phyllon*, leaf.] A yellow colouring matter in plants, a decomposition product of chlorophyll.

chylaceous (kilä'séus) *a.* [Gk. *chylos*, juice.] Of the nature of chyle.

chyle (kil) *n.* [Gk. *chylos*, juice.] Lymph containing globules of emulsified fat, found in the lacteals during digestion.

chylification (kí'lífák'shün) *n.* [Gk. *chylos*, juice; *L. facere*, to make.] Formation of chyle; also chylification; chylopoiesis.

chyliferous (kilíf'érüs) *a.* [Gk. *chylos*, juice; *L. ferre*, to carry.] Chyle-conducting; *appl.* tubes or vessels; chylophoric.

chylific (kilíf'ik) *a.* [Gk. *chylos*, juice; *L. facere*, to make.] Chyle-producing; *appl.* ventricle or true stomach of insects.

chylification,—chylification.

chylocaulous (kilöcöl'üs) *a.* [Gk. *chylos*, juice; *kaulos*, stem.] With fleshy stems.

chylocyst (kí'lösíst) *n.* [Gk. *chylos*, juice; *kystis*, bladder.] The chyle receptacle; cisterna chyli.

chylomicrons (kilömi'krönz) *n. plu.* [Gk. *chylos*, juice; *mikros*, small.] Minute fatty particles in plasma, plentiful during fat digestion.

chylophoric,—chyliferous.

chylophyllous (kí'löfil'üs) *a.* [Gk. *chylos*, juice; *phyllon*, leaf.] With fleshy leaves; *appl.* certain desert plants.

chylopoiesis (kí'löpoië'sis) *n.* [Gk. *chylos*, juice; *poiesis*, a making.] The production of chyle.

chyme (kīm) *n.* [Gk. *chymos*, juice.]

The partially digested food after leaving the stomach.

chymification (kí'mífikā'shün) *n.* [Gk. *chymos*, juice; *L. facere*, to make.] The process of converting food into chyme.

chymosin,—rennin, *q.v.*

chymotrypsin (kí'mötříp'sin) *n.* [Gk. *chymos*, juice; *tryein*, to rub down; *pepsis*, digestion.] An enzyme which, in the small intestine, splits the various protein products of the action of pepsin and trypsin.

chymotrypsinogen (kí'mötřípsín'ö-jén) *n.* [Gk. *chymos*, juice; *tryein*, to rub down; *pepsis*, digestion; *-genes*, producing.] A pancreatic enzyme which is converted into chymotrypsin.

chytridium (kítríd'iüm) *n.* [Gk. *chytridion*, little pot.] The spore vessel of certain fungi.

cibarium (sibā'ríüm) *n.* [L. *cibaria*, victuals.] The part of the buccal cavity anterior to pharynx, in insects.

cicatricial tissue,—newly-formed fibrillar connective tissue which closes and draws together wounds.

cicatrice (síkāt'ríkl), **cicatrixcula** (sík'ātrík'ülä), **cicatrix** (síkā'tríks) *n.* [L. *cicatrix*, scar.] The blastoderm in bird and reptile eggs; a small scar in place of previous attachment of an organ; a scar; the mark left after healing of a wound in plants.

cicinnal (sís'ínäl) *a.* [Gk. *kikinnos*, curled lock.] *Appl.* uniparous cymose branching in which daughter axes are developed right and left alternately; cinnamal.

cilia (sil'íä) *n. plu.* [L. *cilium*, eyelid.] Hairlike vibratile outgrowths of ectoderm, or processes, of many cells; barbicels of a feather; eyelashes.

ciliaris (siliā'ris) *n.* [L. *cilium*, eyelid.] Unstripped muscle forming a ring outside anterior part of choroid and, attached to ciliary processes, acting on convexity of lens.

ciliary (sil'íärl) *a.* [L. *cilium*, eyelid.] *Pert.* cilia; *pert.* eyelashes; *appl.* sudoriferous glands; *appl.* certain

- structures in the eyeball, as arteries, body, processes, muscle; *appl.* branches of nasociliary nerve and to ganglion.
- ciliate** (sil'îât) *a.* [*L. cilium*, eyelid.] Provided with cilia; ciliated.
- ciliated epithelium**,—an epithelium found lining various passages, usually with columnar cells provided with cilia on the free surface.
- ciliograde** (sil'îôgrâd) *a.* [*L. cilium*, eyelid; *gradus*, step.] Progressing by movement of cilia.
- ciliolum** (sili'olüm) *n.* [*Dim.* of *L. cilium*, eyelid.] A minute cilium.
- ciliospore** (sil'îöspör) *n.* [*L. cilium*, eyelid; *Gk. sporos*, seed.] A ciliated protozoan swarm-spore.
- cilium** (sil'îüm) *n.* [*L. cilium*, eyelid.] *Sing.* of cilia, *q.v.*
- cinchonine** (sin'könin) *n.* [After Countess *de Chinchón*.] Alkaloid found in various Rubiaceae; $C_{19}H_{22}ON_2$.
- cincinnus** (sinsin'üs) *n.* [*L. cincinnus*, curl.] A scorpioid cyme.
- cinclides** (sing'klidéz) *n. plu.* [*Gk. kinglys*, latticed gate.] Perforations, in body wall of certain Anthozoa, for extrusion of acontia. *Sing.* cinclis.
- cinerea** (sinē'rēa) *n.* [*L. cinereus*, ashen.] The grey matter of the nervous system.
- cinereous**,—ashy-grey; tephrous.
- cingula**,—*plu.* of cingulum. *n. sing.* Ring formed by hyphal proliferation around upper part of stipe, uniting with incurved edge of pileus; *plu.* cingulae.
- cingulate** (sing'gülat) *a.* [*L. cingulum*, girdle.] Having a girdle or cingulum; shaped like a girdle; *appl.* a gyrus and sulcus above corpus callosum.
- cingulum** (sing'güüm) *n.* [*L. cingulum*, girdle.] Any structure which is like a girdle; part of plant between root and stem; part of diatom frustule uniting valves; a ridge round base of crown of a tooth; a tract of fibres connecting callosal and hippocampal convolutions of brain; outer ciliary zone on disc of rotifers; clitellum, *q.v.*
- cion**,—scion, *q.v.*
- circinate** (sir'sinât) *a.* [*L. circinatus*, made round.] Rolled on the axis, so that apex is centre.
- circulation** (sēr'küäl'shün) *n.* [*L. circulatio*, act of circulating.] The regular movement of any fluid within definite channels in the body; streaming movement of protoplasm of plant cells.
- circulus** (sir'küüs) *n.* [*L. circulus*, circle.] Any ringlike arrangement, as of blood-vessels caused by branching or connection with one another, as circulus major of iris, or as of markings of fish scales.
- circulus arteriosus**,—a vascular ring at base of brain; circle of Willis.
- circumduction** (sēr'kümdük'shün) *n.* [*L. circum*, around; *ductus*, led.] The form of motion exhibited by a bone describing a conical space with the articular cavity as apex.
- circumferential** (sēr'kümfērēn'shāl) *a.* [*L. circum*, around; *ferre*, to bear.] *Appl.* cartilages which surround certain articulatory fossae; *appl.* primary lamellae parallel to circumference of bone.
- circumfila** (sēr'kümfil'lä) *n. plu.* [*L. circum*, around; *filum*, thread.] Looped or wreathed filaments on antennal segments, as in gallmidges.
- circumflex** (sēr'kümfleks) *a.* [*L. circum*, around; *flectere*, to bend.] Bending round; *appl.* certain arteries, veins; *appl.* nerve, the axillary nerve.
- circumfluence** (sēr'kümflooēns) *n.* [*L. circum*, around; *fluens*, flowing.] In Protozoa, ingestion by protoplasm flowing towards food and surrounding it after contact; *cf.* circumvallation.
- circumgenital** (sēr'kümjēn'itäl) *a.* [*L. circum*, around; *gignere*, to beget.] Surrounding the genital pore; *appl.* glands secreting waxy powder in oviparous species of Coccidae.

circumnutation (sēr'kümnūtā'shūn) *n.* [L. *circum*, around; *nutare*, to nod.] The irregular elliptical or spiral movement exhibited by apex of a growing stem, shoot or tendril.

circumoesophageal (sēr'kümesō-fāj'ēāl) *a.* [L. *circum*, around; Gk. *oisophagos*, gullet.] *Appl.* structures or organs surrounding or passing along the gullet.

circumpolar (sēr'kümpō'lār) *a.* [L. *circum*, around; *polus*, end of axle.] *Appl.* flora and fauna of Polar regions.

circumpulpar (sēr'kümpūl'pār) *a.* [L. *circum*, around; *pulpa*, fruit-pulp.] *Appl.* dentine forming layer around pulp cavity of teeth, as in fishes.

circumscissile (sēr'kümsis'il) *a.* [L. *circum*, around; *scindere*, to cut.] Splitting along a circular line; *appl.* dehiscence exhibited by a pyxidium.

circumscrip (sēr'kümskript) *a.* [L. *circumscribere*, to draw line around.] *Appl.* marginal sphincter when sharply defined, in sea-anemones.

circumvallate (sēr'kümvāl'āt) *a.* [L. *circum*, around; *vallum*, rampart.] Encircled by a wall, as of tissue; *vallate*, *appl.* certain tongue papillae.

circumvallation (sēr'kümvālā'shūn) *n.* [L. *circum*, around; *vallare*, to wall.] Ingestion of food by extruded pseudopodia, as in protozoa or in phagocytes.

circumvascular (sēr'kümvās'külār) *a.* [L. *circum*, around; *vasculum*, small vessel.] *Appl.* dentine lining vascular canals in pulp cavity of teeth, as in fishes.

cirral (sir'al) *a.* [L. *cirrus*, curl.] *Pert.* cirri or a cirrus. *n.* Any of the hollow ossicles in cirri of crinoids.

cirrate (sir'āt) *a.* [L. *cirratus*, having curls.] Having cirri.

cirrhoi, cirrhus,—cirri, cirrus.

cirri (sir'i) *n. plu.* [L. *cirrus*, curl.] Tendrils; appendages of barnacles; jointed filaments of axis or of aboral surface of crinoids; barbels of fishes; respiratory and tactile appendages of worms; organs of

copulation in some molluscs and trematodes; hairlike structures on appendages of insects.

cirrose (sir'ōs, sirōs') *a.* [L. *cirrus*, curl.] With cirri or tendrils.

cirrus (sir'ūs) *n.* [L. *cirrus*, curl.] Tendril; a tendril-like structure; coherent spores discharged through an ostiole. *Plu.* cirri, *q.v.*

cisterna (sistēr'nā) *n.* [L. *cisterna*, cistern.] Closed space containing fluid, as any of the subarachnoid spaces; cisterna chyli, the dilated beginning of the thoracic duct, receiving lymph and chyle from vessels of hind limbs and abdomen; a minute tubule of endoplasmic network.

cistron,—the portion of a chromosome within which a number of mutational entities or loci is integrated for one function.

citrin (sit'rīn) *n.* [L.L. *citrus*, lemon.] A factor in lemon juice which regulates capillary permeability; vitamin P.

citrulline (sit'rūl'in) *n.* [L. *citrullus*, water-melon.] An amino acid first obtained from water-melon, also occurring as intermediate product in formation of urea from ornithine; $C_6H_{13}O_3N_3$.

cladanthous (klādānthūs) *a.* [Gk. *klados*, sprout; *anthos*, flower.] Having terminal archegonia on short lateral branches; cladocarpous.

cladautoicous (klād'ōtoik'ūs) *a.* [Gk. *klados*, sprout; *autos*, self; *oikos*, house.] With antheridia on a special stalk, as in mosses.

cladocarpous,—cladanthous, *q.v.*

cladode (klād'ōd) *n.* [Gk. *klados*, sprout.] Branch arising from axil of leaf, or green flattened stem, resembling a foliage leaf; cladophyll, cladophyllum, phylloclade.

cladodont (klād'ōdōnt) *a.* [Gk. *klados*, sprout; *odous*, tooth.] Having or *appl.* teeth with prominent central and small lateral cusps.

cladogenesis (klādōjēn'ēsis) *n.* [Gk. *klados*, sprout; *genesis*, descent.] Branching of evolutionary lineages so as to produce new types.

cladogenous (klädöj'ënüs) *a.* [Gk. *klados*, sprout; *gennaein*, to produce.] Stem-borne; *appl.* certain roots; cladanthous, *q.v.*

cladome (klädöm') *n.* [Gk. *klados*, sprout.] The group of superficially situated rays in a triaene.

cladophyll (kläd'öfil) *n.* [Gk. *klados*, sprout; *phyllon*, leaf.] Cladode.

cladoptosis (kläd'öptö'sis) *n.* [Gk. *klados*, sprout; *ptosis*, falling.] Annual or other shedding of twigs.

cladose (kläd'ös) *a.* [Gk. *klados*, sprout.] Branched.

cladosiphonic (kläd'ösifön'ik) *a.* [Gk. *klados*, sprout; *siphon*, tube.] With insertion of leaf-trace on periphery of the axial stele; *opp.* phyllosiphonic.

cladotyle (kläd'ötöl) *n.* [Gk. *klados*, sprout; *tylos*, knob.] A rhabdus with one actine branched, the other tylote.

cladus (klä'düs) *n.* [Gk. *klados*, branch.] A branch, as of a branched spicule.

clamp-connections, — swellings on certain dikaryotic hyphae, for passage of daughter nuclei to cell below, with subsequent septum formation; also occurring in whorls, for distribution of nuclei to hyphal branches.

clandestine (kländés'tin) *a.* [L. *clandestinus*, from *clam*, secretly.] *Appl.* evolution which is not apparent in adult forms; or of adult characters from ancestral embryonic characters.

clasmatoblast (kläz'mätöbläst, kläs-) *n.* [Gk. *klasma*, fragment; *blastos*, bud.] A mast cell.

clasmatocyte (kläz'mät'ösit, kläsmät'ösit) *n.* [Gk. *klasma*, fragment; *kytos*, hollow.] A variable basiphil phagocyte or macrophage in areolar tissue; a histiocyte.

claspers (kläs'përz) *n. plu.* [M.E. *clasp*, to hold.] Rod-like processes on pelvic fins of certain male elasmobranchs; outer gonapophyses of insects; valves or harpes of male Lepidoptera; any modification of an organ or part to enable

the two sexes to clasp one another; tendrils or climbing shoots.

claspettes, — harpagones, *q.v.*

class (kläs) *n.* [L. *classis*, division.] A division of a phylum and divided into orders, in classification of plants or animals.

clathrate (kläth'rät) *a.* [Gk. *klethra*, lattice.] Lattice-like; clathroid.

Claudius' cells, — outer columnar or cuboid cells adjoining Hensen's cells in organ of Corti.

claustrum (klös'trüm) *n.* [L. *claustrum*, bar.] In cerebral hemispheres, a thin layer of grey substance lateral to external capsule; one of the Weberian ossicles in Cyprinidae and Characinidae.

clava (klä'vä) *n.* [L. *clava*, club.] A club-shaped spore-bearing structure of certain fungi; the knob-like end of antenna of certain insects; swelling at end of fasciculus gracilis of medulla oblongata.

clavate (klä'vāt) *a.* [L. *clava*, club.] Club-shaped; thickened at one end.

clavicle (kläv'ikl) *n.* [L. *clavicula*, small key.] Collar-bone, forming anterior or ventral portion of the shoulder-girdle.

clavicular (kläv'ik'ülär) *a.* [L. *clavicula*, small key.] *Pert.* clavicle.

clavicularium (kläv'ik'ülä'rürm) *n.* [L. *clavicula*, small key.] The epiplastron of Chelonia, probably corresponding to clavicles of other forms.

claviform (kläv'iförm) *n.* [L. *clava*, club; *forma*, form.] Club-shaped; clavate.

clavola (kläv'ölä) *n.* [L. *clava*, club.] The flagellar portion, or terminal joints, of insect antenna.

clavula (kläv'ülä) *n.* [L. *clava*, club.] A monactinal modification of triaxon spicule; a minute ciliated spine on fasciole of Spatangidae; a clavate sporophore of certain fungi.

clavus (klä'vüs) *n.* [L. *clavus*, nail.] The part of an hemelytron lying next scutellum in Hemiptera; a projection or crotchet from scape of spiders; ergot disease in grasses.

claw (klô) *n.* [A.S. *clawu*, claw.]

The unguis or stalk of a petal; a sharp curved nail on finger or toe; forceps of certain crustaceans; curved process on limb of insect.

clearing foot,—filamentous process of exopodite of second maxilla in Phyllocarida.

cleavage (klē'věj) *n.* [A.S. *cleofan*, to cut.] The series of karyokinetic divisions which change the egg into a multicellular embryo.

cleavage cell,—blastomere, *q.v.*

cleavage nucleus,—nucleus of fertilised egg or zygote produced by union of male and female pronuclei; the egg-nucleus of parthenogenetic eggs.

cleidoic (klidō'ík) *a.* [Gk. *kleis*, bar; *oon*, egg.] Having or *pert.* eggs enclosed within a shell or membrane.

cleistocarp (klī'stökârp) *n.* [Gk. *kleistos*, closed; *karpōs*, fruit.] Cleistothecium, *q.v.*

cleistocarpous (klī'stökâr'pūs) *a.* [Gk. *kleistos*, closed; *karpōs*, fruit.] Having closed ascocarps; with non-operculate capsules, *appl.* mosses; cleistocarpic.

cleistogamic (klīstögâm'ík) *a.* [Gk. *kleistos*, closed; *gamos*, marriage.] *Pert.* or possessed of characteristics of cleistogamy; cleistogamous.

cleistogamy (klīstög'āmī) *n.* [Gk. *kleistos*, closed; *gamos*, marriage.] State of having small inconspicuous self-fertilising flowers; fertilisation without opening of florets, *opp.* chasmogamy.

cleistogene (klī'stōjēn) *n.* [Gk. *kleistos*, closed; *genos*, descent.] A plant with cleistogamous flowers.

cleistothecium (klīstōthē'sīūm) *n.* [Gk. *kleistos*, closed; *theke*, box.] An ascocarp which remains closed and produces its spores internally.

cleithrum (klī'thrūm) *n.* [Gk. *kleithron*, bar.] The pair of additional clavicles in Stegocephalia; clavicular element of some fishes.

climacteric (klīmāktēr'ík) *n.* [Gk. *klīmakter*, step of staircase.] A critical phase, or period of change,

in living organisms; *appl.* change associated with menopause, or with male function; *appl.* phase of increased respiratory activity at ripening of fruit.

climatype (klī'mătīp) *n.* [Gk. *klima*, climate; *typos*, image.] A biotype resulting from selection in a particular climate; climatic ecotype.

climax (klī'māks) *n.* [Gk. *klīmax*, ladder.] The mature or stabilised stage in a successional series of communities, when dominant species are completely adapted to environmental conditions; completion of development, *appl.* leaves.

clinandrium (klinăn'drīūm) *n.* [Gk. *kline*, bed; *aner*, man.] A cavity in the column between anthers in orchids.

clinanthium (klinăn'thīūm) *n.* [Gk. *kline*, bed; *anthos*, flower.] A dilated floral receptacle, as in capitulum of Compositae.

cline (klīn) *n.* [Gk. *klinein*, to slant.] A series of form changes; gradient of biotypes; character-gradient.

clinging fibres,—tendrils, *q.v.*

clinidium (klīnīd'īūm) *n.* [Gk. *klinidion*, small couch.] A filament in a pycnidium, which produces spores.

clinoid (klī'noid) *a.* [Gk. *kline*, couch; *eidōs*, form.] *Appl.* processes of sella turcica.

clinology (klīnōl'ōjī) *n.* [Gk. *klinein*, to decline; *logos*, discourse.] The study of the decline of organisms after maturity, or after their prime in groups or in phylogeny.

clinosporangium (klī'nōspōrăn'jīūm) *n.* [Gk. *kline*, bed; *spora*, seed; *anggeion*, vessel.] Pycnidium, *q.v.*

clinospore (klī'nōspōr) *n.* [Gk. *kline*, bed; *spora*, seed.] A spore abjoined from a clinidium; a conidium, *q.v.*

clisere (klī'sēr) *n.* [*climate*; *sere*.] Succession of communities which results from a changing climate.

clitellum (klītēl'ūm) *n.* [L. *clitellae*, pack-saddle.] The saddle or swollen glandular portion of skin of certain annelid worms.

clitoris (kli'tōris) *n.* [Gk. *kleiein*, to enclose.] An erectile organ, homologous with penis, at upper part of vulva.

clivus (kli'vūs) *n.* [L. *clivus*, slope.] A shallow depression in sphenoid, behind dorsum sellae; posterior sloped part of the monticulus.

cloaca (klōā'kā) *n.* [L. *cloaca*, sewer.] The common chamber into which intestinal, genital, and urinary canals open, in vertebrates except most mammals.

clone (klōn) *n.* [Gk. *klon*, twig.] An individual produced asexually; group of individuals propagated by mitosis from a single ancestor; an apomict strain.

clonus (klōn'ūs) *n.* [Gk. *klonos*, violent motion.] A series of muscular contractions when individual contractions are discernible; incomplete tetanus.

club hair,—a hair forming a keratinised club-shaped bulb, becoming detached from papilla, and eventually shed.

clunes (kloon'ēz) *n. plu.* [L. *clunes*, buttocks.] Buttocks; nates.

cluster-crystals, — globular aggregates of calcium oxalate crystals in plant cells; sphaeraphides.

cluster-cup,—aecidium, *q.v.*

clypeal (klip'ēāl) *a.* [L. *clypeus*, shield.] *Pert.* clypeus of insects.

clypeate (klip'ēāt) *a.* [L. *clypeus*, shield.] Round or buckler-like; clypeiform; having a clypeus.

clypeola (klip'ēōlā), **clypeole** (klip'ēōl) *n.* [L. *clypeus*, shield.] A sporophyll in the spike of an Equisetum.

clypeo-labral (klip'ēōlāb'rāl) *a.* [L. *clypeus*, shield; *labrum*, lip.] *Appl.* suture between clypeus and labrum.

clypeus (klip'ēūs) *n.* [L. *clypeus*, shield.] A sclerite on anteromedian part of insect head; a band of tissue round mouth of perithecium of certain fungi.

cnemial (knē'miāl, nē'miāl) *a.* [Gk. *kneme*, tibia.] *Pert.* tibia; *appl.* ridge along dorsal margin of tibia.

cnemidium (knēmīd'ium, nēmīd'-

ium) *n.* [Gk. *knemis*, legging; *idion*, *dim.*] Lower part of bird's leg devoid of feathers, generally scaly.

cnemis (knē'mis, nē'mis) *n.* [Gk. *knemis*, legging.] Shin or tibia.

cnida (knī'dā, nī'dā) *n.* [Gk. *knide*, nettle.] A cnidoblast; a nematocyst.

cnidoblast (knī'dōblāst, nī'dōblāst) *n.* [Gk. *knide*, nettle; *blastos*, bud.] Stinging cell of Coelentera.

cnidocil (knī'dōsīl, nī'dōsīl) *n.* [Gk. *knide*, nettle; *L. cilum*, eyelid.] A minute process projecting externally from a cnidoblast.

cnidophore (knī'dōfōr, nī'dōfōr) *n.* [Gk. *knide*, nettle; *pherein*, to bear.] A modified zooid which bears nematocysts.

cnidopod (knī'dōpōd, nī'dōpōd) *n.* [Gk. *knide*, nettle; *podus*, foot.] Drawn-out basal part of a nematocyst, embedded in mesogloea.

cnidosac (knī'dōsāk, nī'dōsāk) *n.* [Gk. *knide*, nettle; *sakkos*, bag.] A kidney-shaped swelling or battery, often protected by a hood, found on dactylozooids of Siphonophora.

coactate (kōāk'tāt) *a.* [L. *coacta*, felt.] Closely matted but smooth, *appl.* surface.

coaction (kōāk'shūn) *n.* [L. *cum*, with; *actio*, action.] The reciprocal activity of organisms within a community.

coadaptation (kō'ādāptā'shūn) *n.* [L. *cum*, with; *ad*, to; *aptare*, to fit.] The correlated variation in two mutually dependent organs.

coagulation (kōāgūlā'shūn) *n.* [L. *cum*, together; *agere*, to drive.] Curdling or clotting; the changing from a liquid to a viscous or solid state by chemical reaction; *appl.* vitamin K, the antihæmorrhagic accessory food factor.

coagulin (kōāg'ūlīn) *n.* [L. *coagulum*, rennet.] Any agent capable of coagulating albuminous substances.

coagulocyte (kōāg'ūlōsīt) *n.* [L. *cum*, together; *agere*, to drive; Gk. *kytos*, hollow.] A granular hæmocyte or cystocyte, in insects.

coagulum (kōäg'ülüm) *n.* [L. *coagulum*, rennet.] Any coagulated mass; clot; curd.

coaptation (kōäptä'shün) *n.* [L. *cum*, together; *aptare*, to fit.] Mutual adjustment of parts; dependence of function upon the presence of an organic structure or character.

coarctate (kōärk'tät) *a.* [L. *coarctare*, to press together.] Compressed; closely connected; with abdomen separated from thorax by a constriction.

coarctate larva or pupa,—semi-pupa; pseudopupa; a larval stage of certain Diptera.

cobalamin,—an organic compound containing cobalt. $C_{63}H_{90}N_{14}O_{44}$ P Co, present in liver and animal foods; vitamin B₁₂, anti-pernicious anaemia factor and promoting growth; B_{12a} cyanocobalamin; B_{12b} hydroxocobalamin; B_{12c} nitrocobalamin.

cocci (kōk'sī) *n. plu.* [Gk. *kokkos*, berry.] Septicidal carpels; spore mother cells of certain hepatics; rounded cells, as certain bacteria.

coccogone (kōk'ōgōn) *n.* [Gk. *kokkos*, berry; *gonos*, birth.] A reproductive cell in certain algae.

coccoid (kōk'oid) *a.* [Gk. *kokkos*, berry; *eidos*, form.] Like or *pert.* a coccus; spherical or globose.

coccolith (kōk'ōlth) *n.* [Gk. *kokkos*, berry; *lithos*, stone.] A calcareous spicule in certain Flagellata.

coccospheres (kōk'ōsfēr) *n. plu.* [Gk. *kokkos*, berry; *sphaira*, globe.] Remains of hard parts of certain algae and radiolarians.

coccus (kōk'ūs) *n.* [Gk. *kokkos*, berry.] *Sing.* of cocci, *q.v.*

coccygeal (kōksij'ēäl) *a.* [Gk. *kokkyx*, cuckoo.] *Pert.* or in region of coccyx.

coccyx (kōk'siks) *n.* [Gk. *kokkyx*, cuckoo.] The terminal part of the vertebral column beyond the sacrum.

cochlea (kōk'lēä) *n.* [Gk. *kochlias*, snail.] Anterior part of labyrinth of the ear, spirally coiled like a snail's shell; a coiled legume.

cochlear (kōk'lēär) *a.* [Gk. *kochlias*, snail.] *Appl.* aestivation when wholly internal leaf is next but one to wholly external leaf; *pert.* the cochlea.

cochleariform (kōk'lēär'ifōrm) *a.* [Gk. *kochlias*, snail; L. *forma*, shape.] Screw- or spoon-shaped; *pert.* thin plate or process of bone separating tensor tympani canal from Eustachian tube.

cochleate (kōk'lēät) *a.* [Gk. *kochlias*, snail.] Screw-like; spiral.

cocoon (kōkoon') *n.* [F. *cocon*, cocoon.] The protective case of many larval forms before they become pupae; silky or other covering formed by many animals for their eggs.

coelarium,—coelomic epithelium; mesothelium.

coelenteron (sēlën'tēlōn) *n.* [Gk. *koilos*, hollow; *enteron*, intestine.] Cavity in body of Coelenterata.

coeliac (sē'liäk) *a.* [Gk. *koilia*, belly.] *Pert.* the abdominal cavity; *appl.* arterics, veins, nerves, plexus.

coeloblast (sē'lōbläst) *n.* [Gk. *koilos*, hollow; *blastos*, bud.] A division of the embryonic hypoblast.

coeloconic (sē'lōkōn'ik) *a.* [Gk. *koilos*, hollow; *konos*, cone.] Having, or consisting of, a conical process situated in a pit; *appl.* sensillae.

coelogastrula (sē'lōgäs'troolä) *n.* [Gk. *koilos*, hollow; *gaster*, stomach.] A gastrula developed from a blastula with a segmentation cavity.

coelom (sē'lōm) *n.* [Gk. *koiloma*, hollow.] Body cavity, *q.v.*

coelomate (sē'lōmät sē'lōmät,) *a.* [Gk. *koiloma*, hollow.] Having a coelom.

coelomesoblast (sē'lōmēs'ōbläst) *n.* [Gk. *koilos*, hollow; *mesos*, middle; *blastos*, bud.] In segmentation, the mesoblastic bands destined to form wall of coelom and out-growths.

coelomic (sē'lōm'ik) *a.* [Gk. *koiloma*, hollow.] *Pert.* a coelom.

coelomocytes (sēlō'mōsīts) *n. plu.* [Gk. *koiloma*, hollow; *kytos*, hollow vessel.] Coelomic corpuscles, including amoebocytes and eleocytes, in annelids; mesenchymatous cells in body cavity of nematodes; cells in coelomic fluid and in water-vascular and haemal systems, including morula-shaped cells, spindle-shaped cells, phagocytes, and crystal cells, in echinoderms.

coelomduct (sēlō'mōdükt) *n.* [Gk. *koiloma*, hollow; *L. ducere*, to lead.] A channel leading from body cavity to exterior.

coelomopores (sēlō'mōpōrz) *n. plu.* [Gk. *koiloma*, hollow; *poros*, passage.] Ducts leading directly from pericardial cavity to exterior, peculiar to Nautilus.

coelomostome (sēlō'mōstōm) *n.* [Gk. *koiloma*, hollow; *stoma*, mouth.] The external opening of a coelomoduct.

coelosperm (sē'lōspērm) *n.* [Gk. *koilos*, hollow; *sperma*, seed.] A carpel, hollow on its inner surface.

coelozoic (sē'lōzō'ik) *a.* [Gk. *koilos*, hollow; *zoon*, animal.] *Appl.* a trophozoite when situated in some cavity of the body.

coenangium (sēnān'jūm) *n.* [Gk. *koinos*, common; *anggeion*, vessel.] A coenocytic sporangium.

coenanthium (sēnān'thūm) *n.* [Gk. *koinos*, common; *anthos*, flower.] Inflorescence with a nearly flat receptacle having upcurved margins.

coenenchyma (sēnēng'kīmā) *n.* [Gk. *koinos*, common; *engchyma*, infusion.] Common tissue which connects the polyps or zooids of a compound coral; coenenchyme.

coenobium (sēnō'bīūm) *n.* [Gk. *koinos*, common; *bios*, life.] A unicellular colony with no marked distinction between vegetative and reproductive units; colony or unit of undifferentiated cells.

coenoblast (sē'nōblāst) *n.* [Gk. *koinos*, common; *blastos*, bud.] A germ-layer which gives origin to endoderm and mesoderm.

coenocentre (sē'nōsēn'tēr) *n.* [Gk.

koinos, common; *kentron*, centre.] A deeply-staining body accompanying the ovum in certain fungi.

coenocyte (sē'nōsīt) *n.* [Gk. *koinos*, common; *kytos*, hollow.] A plant body in which constituent protoplasts are not separated by cell walls. *a.* Coenocytic.

coenoecium (sēnē'siūm) *n.* [Gk. *koinos*, common; *oikos*, house.] The common groundwork of a polyzoan colony.

coenogametangium (sē'nōgāmētān'jūm) *n.* [Gk. *koinos*, common; *gametes*, spouse; *anggeion*, vessel.] A coenocytic gametangium, as in Zygomycetes.

coenogamete (sē'nōgāmēt') *n.* [Gk. *koinos*, common; *gametes*, spouse.] A multinucleate gamete.

coenogamy (sēnōg'āmī) *n.* [Gk. *koinos*, common; *gamos*, marriage.] The union of coenogametangia.

coenogenesis (sē'nōjēn'ēsis) *n.* [Gk. *koinos*, common; *genesis*, descent.] Common descent from the same ancestry; blood relationship.

coenogony (sēnōg'ōnī) *n.* [Gk. *koinos*, common; *gone*, generation.] Reproduction by means of coenocytes.

coenosarc (sē'nōsārk) *n.* [Gk. *koinos*, common; *sarx*, flesh.] The common tissue uniting the polyps in a compound colony.

coenosite (sē'nōsīt) *n.* [Gk. *koinos*, common; *sitos*, food.] An organism habitually sharing food with another; a commensal.

coenosteum (sēnōs'tēūm) *n.* [Gk. *koinos*, common; *osteon*, bone.] The common colonial skeleton in corals.

coenotrope (sē'nōtrōp) *n.* [Gk. *koinos*, common; *trope*, turning.] Behaviour common to a group of organisms or to a species.

coenozygote (sē'nōzī'gōt) *n.* [Gk. *koinos*, common; *zygon*, yoke.] A zygote formed by coenogametes.

coenurus (sēnū'rūs) *n.* [Gk. *koinos*, common; *oura*, tail.] A metacystode with large bladder, from whose walls many daughter-cysts arise, each with one scolex.

co-enzyme (kō'ēn'zīm) *n.* [L. *cum*, with; Gk. *en*, in; *zyme*, leaven.] A substance which activates an enzyme or accelerates its action; co-ferment.

cog-tooth,—spur or projection of incudal facet of malleus.

coherent (kōhē'rēnt) *a.* [L. *cohaerere*, to stick together.] With similar parts united; adherent.

cohesion (kōhē'zhūn) *n.* [L. *cohaerere*, to stick together.] Condition of union of separate parts of floral whorl; *cf.* adhesion.

cohort (kō'hōrt) *n.* [L. *cohors*, enclosure.] A group of related families; in earlier classifications a somewhat indefinitely limited group.

coino-,—*coeno*-.

coition (kōish'ūn) *n.* [L. *coire*, to go together.] Sexual intercourse; coitus; copulation.

colchicine (kōl'kisin) *n.* [L. *colchicum*, meadow saffron, from *Colchis*, ancient Mingrelia.] An alkaloid obtained from meadow saffron, influencing mitosis and tissue metabolism; $C_{22}H_{25}O_6N$.

coleogen (kōl'ēōjēn) *n.* [Gk. *koleos*, sheath; *gennaion*, to produce.] Meristematic layer giving rise to endodermis.

coleopterous (kōl'ēōp'tērūs) *a.* [Gk. *koleos*, sheath; *pteron*, wing.] Having the anterior wings hard and used as elytra; *pert.* beetles.

coleoptile (kōl'ēōptil) *n.* [Gk. *koleos*, sheath; *ptilon*, feather.] The first leaf in seedling of monocotyledons.

coleorhiza (kōl'ēōrī'zā) *n.* [Gk. *koleos*, sheath; *rhiza*, root.] The layer surrounding the radicle.

colic (kōl'ik) *a.* [Gk. *kolon*, colon.] *Pert.* the colon.

coliform (kō'lifōrm) *a.* [L. *colum*, strainer; *forma*, shape.] Sieve-like; cribriform. [Gk. *kolon*, colon.] Resembling colon bacilli.

collagen (kōl'ājēn) *n.* [Gk. *kolla*, glue; *genos*, descent.] A scleroprotein, occurring as chief constituent of white connective tissue fibres and organic part of bone, also of some fish scales.

collar (kōl'ār) *n.* [M.E. *coler*, collar.]

The choana of a collared cell; a prominent fold behind the proboscis in Hemichorda; the fleshy rim projecting beyond the edge of a snail shell; any structure comparable with a collar; collum, *g.v.*; junction between root and stem; collet, *g.v.*

collar cell,—choanocyte.

collarette,—line of junction between pupillary and ciliary zones of anterior surface of iris; iris frill, angular line.

collateral (kōlāt'ērāl) *a.* [L. *cum*, with; *latera*, sides.] Side by side; *appl.* ovules; *appl.* bundles with xylem and phloem in the same radius; *appl.* fine lateral branches from the axon of a nerve cell; *appl.* prevertebral ganglia of sympathetic system; *appl.* inheritance of character from a common ancestor in individuals not lineally related; *appl.* circulation established through anastomosis with other parts when the chief vein is obstructed.

collective fruit,—fruit formed from complete inflorescences, as mulberry and pine-apple.

collector (kōlĕk'tōr) *n.* [L. *colligere*, to collect.] One of the pollen-retaining hairs on stigma or style of certain flowers; collecting hair.

collenchyma (kōlēng'kimā) *n.* [Gk. *kolla*, glue; *engcyhma*, infusion.] Parenchymatous peripheral supporting tissue with cells more or less elongated and thickened, either at the angles (angular c.), or on walls adjoining intercellular spaces (lacunar c.), or tangentially (lamellar c.); the middle layer of sponges; collenchyme.

collencyte (kōl'ēnsīt) *n.* [Gk. *kolla*, glue; *en*, in; *kytos*, hollow.] A clear cell with thread-like pseudopodia found in sponges.

collet (kōl'ēt) *n.* [F. *collet*, collar.] Root zone, of hypocotyl, where cuticle is absent.

colleterium (kōl'ētēr'iūm) *n.* [Gk. *kolla*, glue.] A colleterial or mucus-secreting gland in female reproductive system of insects.

colleters (kölē'tērzh) *n. plu.* [Gk. *kolletos*, glued.] The hairs, usually secreting a gluey substance, which cover many resting buds; multicellular glandular trichomes.

colletocystophore (kölē'tōsist'ōfōr) *n.* [Gk. *kolletos*, glued; *kystis*, bladder; *pherein*, to bear.] The statorhabd of Haliclystus.

colliculate (kōlik'ülāt) *a.* [L. *dim.* of *collis*, hill.] Having small elevations.

colliculus (kōlik'ülūs) *n.* [L. *colliculus*, little hill.] A prominence of corpora quadrigemina; a rounded elevation near apex of antero-lateral surface of aryaenoid cartilages; slight elevation formed by optic nerve at entrance to retina; elevation of urethral crest, with openings of ejaculatory ducts and prostatic utricle.

colloblast (köl'öbläst) *n.* [Gk. *kolla*, glue; *blastos*, bud.] A cell on tentacles and pinnae of ctenophores, which carries little globules of adhesive substance; lasso-cell.

colloid (köl'oid) *n.* [Gk. *kolla*, glue; *eidos*, form.] A gelatinous substance which does not readily diffuse through an animal or vegetable membrane; *opp.* crystalloid; a substance composed of two homogeneous parts or phases, one of which is dispersed in the other.

collophore (köl'ōfōr) *n.* [Gk. *kolla*, glue; *pherein*, to bear.] The ventral tube of Collembola.

collum (köl'üm) *n.* [L. *collum*, neck.] Neck; collar, *q.v.*; any collar-like structure; dorsal plate of first body-segment in Diplopoda; basal portion of sporogonium in mosses.

colon (kō'lōn) *n.* [Gk. *kolon*, colon.] The second portion of intestine of insects; part of the large intestine of vertebrates.

colony (köl'ōnī) *n.* [L. *colonia*, farm.] Any collection of organisms living together, *appl.* ants, bees; a group of animals or plants living together and somewhat isolated, or established in a new area; a

coenobium; a group of bacteria or of other micro-organisms in a culture.

colostrum (kölōs'trūm) *n.* [L. *colostrum*.] Milk secreted at end of pregnancy and differing from that secreted later.

colulus (köl'ülūs) *n.* [Dim. of L. *colus*, distaff.] A small conical structure between anterior spinners of spiders.

columella (köl'ümēl'ä) *n.* [L. *columella*, small column.] A prolongation of stalk into sporangium; central core in root-cap; central pillar in skeleton of some corals; the central pillar in gasteropod shells; epipterygoid; the rod, partly bony, partly cartilaginous, connecting tympanum with inner ear in birds, reptiles, and amphibians; the axis of cochlea; lower part of nasal septum.

columellar (köl'ümēl'är) *a.* [L. *columella*, small column.] *Pert.* columella.

column (köl'üm), **columna** (kölüm'nä) *n.* [L. *columna*, pillar.] Any structure like a column, as spinal column; actinian body; stalk of a crinoid; longitudinal bundle of nerve fibres in white matter of spinal cord; nasal septum edge; thick muscular strands found in ventricle; stamens in mallows; united stamens and style in orchids.

columnals (kölüm'nälz) *n. plu.* [L. *columna*, pillar.] Stem ossicles in crinoids.

columnar (kölüm'när) *a.* [L. *columna*, pillar.] *Pert.*, or like, a column or columna; *appl.* cells longer than broad; *appl.* epithelium of columnar cells.

colyone,—see kolyone.

coma (kō'mä) *n.* [Gk. *kome*, hair.] A terminal cluster of bracts, as in pine-apple; hair-tufts on certain seeds. [Gk. *koma*, deep sleep.] Stupor.

Comanchean (kōmān'chēan) *a.* [Comanche County, Texas.] Lower Cretaceous in North America.

comb (kōm) *n.* [A. S. *comb*.] A comb-like structure, as swimming-plate, ctenidium, pecten, strigilis, honeycomb, fleshy crest, mushroom gill.

comb-ribs, — meridional rows of swimming-plates of ctenophora.

comes (kō'mēz) *n.* [L. *comes*, companion.] A blood-vessel that runs alongside a nerve.

comitalia (kōmītā'liā) *n. plu.* [L. *comitari*, to accompany.] Small di- or tri-actine spicules in sponges.

comma (kōm'ā) *n.* [Gk. *komma*, short clause.] A sarcomere; ino-comma; *appl.* tract, certain nerve fibres in dorsal or posterior column of spinal cord; *appl.* bacillus, the spirillum causing cholera.

commensal (kōmēn'sāl) *n.* [L. *cum*, with; *mensa*, table.] An organism living with another and sharing the food, both species as a rule benefiting by the association.

comminator (kōm'īnātōr) *a.* [L. *cum*, with; *minari*, to threaten.] *Appl.* muscles which connect adjacent jaws in Aristotle's lantern.

commissure (kōm'isūr) *n.* [L. *commissura*, seam.] The union-line between two parts; inner side of mericarp; carpellary cohesion plane; a connecting band of nerve tissue.

comose (kō'mōs) *a.* [L. *comosus*, hairy.] Hairy; having a tuft of hairs.

companion cell, — a narrow cell, retaining its nucleus, derived from a cell giving rise also to a sieve-tube element, in phloem of angiosperms.

compass (kūm'pās) *n.* [L. *cum*, together; *passus*, pace.] A curved bifid ossicle, part of Aristotle's lantern.

compass plants, — certain plants with permanent north and south direction of their leaf edges.

compensation point, — incidence of balance between respiration and photosynthesis, as determined by intensity of light at a given temperature: compensation intensity; limit of sea or lake depth below

which plants lose more by respiration than they gain by photosynthesis: compensation depth or level.

competence (kōm'pētēns) *n.* [L. *competere*, to suit.] Reactive state permitting directional development and differentiation in response to a stimulus, as of part of an embryo in response to an evocator or organiser stimulus.

complement (kōm'plēmēt) *n.* [L. *complere*, to fill up.] The substance in the blood-serum which when destroyed by heat acts with an amoceptor to produce lysis; alexin; a group composed of one, two, or more genomes or chromosome sets derived from a single nucleus.

complemental air, — volume of air which can be taken in addition to that drawn in during normal breathing.

complemental male, — a purely male form, usually small, found living in close proximity to the ordinary hermaphrodite form in certain animals, as barnacles.

complementary (kōm'plēmēn'tāri) *n.* [L. *complere*, to fill up.] The coronoid bone. *a. Appl.* non-suberised cells loosely arranged in cork tissue and forming air passages; *appl.* genes producing a similar effect when inherited separately but a different effect together.

complexus (kōmplēk'sūs) *n.* [L. *complexus*, embrace.] An aggregate; *appl.* muscle, the semi-spinalis capitis.

complicant (kōm'plikānt) *a.* [L. *cum*, together; *plicare*, to fold.] Folding over one another; *appl.* elytra of certain insects.

complicate (kōm'plikāt) *a.* [L. *cum*, together; *plicare*, to fold.] Folded; conduplicate; *appl.* leaves folded longitudinally so that right and left halves are in contact; *appl.* insect wings; compound, *appl.* fruit-body composed of pileoli with stipes joining to form a somewhat central stipe, as in some Hymenomycetes.

composite (kôm'pôsīt) *a.* [L. *cum*, together; *ponere*, to place.] Closely-packed, as a capitulum; *appl.* fruits, as sorosis, syconus, strobilus.

compound (kôm'pownd) *a.* [L. *cum*, together; *ponere*, to place.] Made up of several elements; *appl.* flowers, pistils, leaves, medullary rays, eyes, etc.; *appl.* starch grains with two or more hila.

compound spore,—sporidesm, *q.v.*

compressor (kômpres'ör) *n.* [L. *cum*, together; *premere*, to press.] Something that serves to compress; *appl.* muscles, as compressor naris.

conarium (kônä'rîüm) *n.* [Gk. *kona-rion*, little cone.] Transparent deep-sea larva of Velella; the pineal gland or epiphysis cerebri.

concatenate (kônkät'ênät) *a.* [L. *cum*, together; *calenatus*, chained.] Forming a chain, as spores.

concentric (kônsên'trik) *a.* [L. *cum*, together; *centrum*, centre.] Having a common centre; *appl.* vascular bundles with one kind of tissue surrounding another; *appl.* corpuscles of Hassall.

conceptacle (kônsêp'täkl) *n.* [L. *concipere*, to conceive.] A depression in thallus of certain algae in which gametangia are borne.

conceptive (kônsêp'tiv) *a.* [L. *concipere*, to conceive.] Capable of being fertilised and producing an embryo.

concha (kông'kä) *n.* [Gk. *kongche*, shell.] The cavity of the external ear, which opens into the external acoustic meatus; a superior, middle, and inferior projection from lateral wall of nasal cavity; turbinal body; one of two curved plates of sphenoidal bone; a marine shell.

conchiform (kông'kiförm) *a.* [L. *concha*, shell; *forma*, shape.] Shaped like a concha; shell-shaped; conchoid.

conchiolin (kôngk'i'ölln) *n.* [Gk. *kongche*, shell.] The organic substance that forms the basis of shells of molluscs.

conchology (kôngkôl'ôjī) *n.* [Gk. *kongche*, shell; *logos*, discourse.]

The branch of zoology dealing with molluscs or their shells.

conchula (kông'külä) *n.* [L. *concha*, shell.] The conspicuous protuberant lip of the modified sulcus in Peachia.

concolorate (kônkül'örät) *a.* [L. *concolor*, of the same colour.] Similarly coloured on both sides.

concrecence (kônkrës'ëns) *n.* [L. *concrecere*, to grow together.] The growing together of parts.

concrete (kônkrët) *a.* [L. *concretus*, grown together.] Grown together to form a single structure.

condensation (kôndënsä'shün) *n.* [L. *condensatio*; from *cum*, together, *densare*, to make thick.] Process of making or becoming thick; contraction, thickening and spiralisation of chromatids during prophase.

condensed (kôndën'sd) *a.* [L. *condensare*, to press close together.] *Appl.* inflorescence with short-stalked or sessile flowers closely crowded.

conditional,—*appl.* dominance owing to influence of modifying genes.

conditioned,—*appl.* reflex depending on new functional connections in central nervous system; *appl.* stimulus inducing a conditioned reflex.

conducting (kôndük'ting) *a.* [L. *conducere*, to lead together.] Conveying; *appl.* tissues, bundles.

conduction (kôndük'shün) *n.* [L. *conducere*, to lead together.] The transference of soluble matter from one part of a plant to another; the transmission of an excitation, function of nervous system.

conductivity (kôn'düktiv'iti) *n.* [L. *conducere*, to lead together.] Power of transmitting an impulse.

conductor (kôndük'tör) *n.* [L. *conducere*, to lead together.] That which can transmit; a projection at base of embolus in spiders.

conduplicate (kôndü'plikät) *a.* [L. *conduplicare*, to fold together.] *Appl.* cotyledons folded to embrace the radicle; *appl.* vernation when one half of the leaf is folded upon the other.

condylar (kōn'dilār) *a.* [Gk. *kondylos*, knuckle.] *Pert.* a condyle.

condyle (kōn'dīl) *n.* [Gk. *kondylos*, knuckle.] The antheridium of stoneworts; a process on a bone for purposes of articulation; a rounded structure adapted to fit into a socket.

condyloid (kōn'dīloid) *n.* [Gk. *kondylos*, knuckle; *eidos*, form.] Shaped like, or situated near a condyle.

cone (kōn) *n.* [Gk. *konos*, cone.] The female flower of Coniferae, with woody axis and spirally-arranged carpels; strobile; terminal spike or fructification in clubmosses and horsetails; a conical elevation on an egg just before fertilisation; a conical or flask-shaped cell of the retina.

cone of origin,—small clear area of nerve cell at the point of exit of the axon; implantation cone; axon hill.

cone of Wulzen [*R. Wulzen*, American physiologist]. A structure projecting forwards from pars intermedia into hypophysial cavity in pituitary region of ox and pig.

cone-bipolars, — bipolar cells whose inner ends ramify in contact with dendrites of ganglionic cells.

conferted (kōnfēr'tēd) *a.* [L. *confertus*, crowded.] Closely assembled or packed.

confluence (kōn'flooēns) *n.* [L. *confluere*, to flow together.] Angle of union of superior sagittal and transverse sinuses at occipital bone; confluens sinuum, torcular Herophili.

congeneric (kōn'jēnēr'ik) *a.* [L. *congener*, of same race.] Belonging to the same genus.

congenetic (kōn'jēnēt'ik) *a.* [L. *cum*, with; Gk. *genesis*, descent.] Having the same origin; alike in descent.

congenital (kōnjēn'itāl) *a.* [L. *cum*, with; *gignere*, to beget.] Present at birth; born with.

congestin (kōnjēs'tin) *n.* [L. *congestus*, heaped up.] A toxin of sea-anemone tentacles.

conglobate (kōn-glō'bāt) *a.* [L. *conglobatus*, formed into a ball.] Ball-shaped; *appl.* gland on lower side of ductus ejaculatorius in insects.

conglomerate (kōn-glōm'ērāt) *a.* [L. *cum*, together; *glomerare*, to wind.] Bunched or crowded together.

congression (kōngrēsh'ūn) *n.* [L. *congressio*, meeting.] Chromosome movement to equatorial plane of spindle at metaphase.

coni (kō'nī) *n. plu.* [L. *conus*, cone.] Cones; coni vasculosi; lobules forming head of epididymis.

conidia,—*plu.* of conidium.

conidial (kōnīd'iāl) *a.* [Gk. *konis*, dust; *idion*, *dim.*] *Pert.* a conidium.

conidiiferous (kōnīd'if'ērūs) *a.* [Gk. *konis*, dust; *idion*, *dim.*; L. *ferre*, to bear.] Bearing conidia.

conidiocarp (kōnīd'īōkārp) *n.* [Gk. *konis*, dust; *idion*, *dim.*; *karpōs*, fruit.] A collection of conidiophores enclosed in a covering; a pycnidium.

conidiole (kōnīd'īōl) *n.* [*Dim.* of *conidium*.] A small or a secondary conidium.

conidiophore (kōnīd'īōfōr) *n.* [Gk. *konis*, dust; *idion*, *dim.*; *pherein*, to bear.] A hypha with sterigmata which bear conidia.

conidiospore (kōnīd'īōspōr) *n.* [Gk. *konis*, dust; *idion*, *dim.*; *sporos*, seed.] Spore or conidium produced when dry conditions inhibit reproduction by zoospores, in Phycomycetes.

conidium (kōnīd'īūm) *n.* [Gk. *konis*, dust; *idion*, *dim.*] A fungal spore asexually produced by constriction of sterigma or of part of a hypha; gonidium.

coniferous (kōnif'ērūs) *a.* [L. *conus*, cone; *ferre*, to bear.] Cone-bearing.

conjugate (kōn'joogāt) *v.* [L. *conjugare*, to join together.] To unite, as protozoa; to undergo conjugation. *a.* United in pairs; *appl.* pores united by a groove; *appl.* division in pairs of monoploid nuclei.

conjugated (kōn'joogātēd) *a.* [L. *conjungere*, to join together.] United; *appl.* protein, when molecule united to non-protein molecule.

conjugation (kōn'joogā'shūn) *n.* [L. *cum*, together; *jungere*, to yoke.] The temporary union or complete fusion of two gametes or unicellular organisms; the pairing of chromosomes.

conjunctiva (kōn'jūngktī'vā) *n.* [L. *cum*, together; *jungere*, to join.] Mucous membrane of eye, lining eyelids and reflected over fore part of sclera and constituting corneal epithelium.

conjunctive (kōnjūngktī'v) *a.* [L. *cum*, together; *jungere*, to join.] *Appl.* parenchyma cells in inter-spaces of stelar elements.

connate (kōn'nāt, kōnāt') *a.* [L. *cum*, together; *gnatus*, born.] Firmly joined together from birth; connate-perfoliate, joined together at base so as to surround stem, *appl.* opposite sessile leaves.

connective (kōnēk'tiv) *n.* [L. *connectere*, to bind together.] A connecting band of nerve tissue between two ganglia; tissue separating two lobes of anther; the structure and zone between successive conidia.

connective tissue,—a mesoblastic tissue with a large amount of intercellular substance, and usually connecting and supporting other tissues.

connexivum (kōnēk'sivūm) *n.* [L. *connectere*, to fasten together.] Flattened lateral margin of abdomen in bugs.

connivent (kōnī'vent) *a.* [L. *connivere*, to close the eyes.] Converging; arching over so as to meet.

conoid (kō'noid) *a.* [Gk. *konos*, cone; *eidos*, form.] Cone-like, but not quite conical.

conoid ligament,—one of the fasciculi of the coraco-clavicular ligament.

conoid tubercle,—coracoid tuberosity, a small rough eminence on posterior border of clavicle,

serving for attachment of conoid ligament.

conopodium (kōnōpō'diūm) *n.* [Gk. *konos*, cone; *pous*, foot.] A conical receptacle or thalamus of a flower.

conothea (kōnōthē'kā) *n.* [Gk. *konos*, cone; *theke*, case.] Thin integument of phragmocone.

conscutum (kōn'skūtūm) *n.* [L. *cum*, together with; *scutum*, shield.] Dorsal shield formed by united scutum and alloscutum in certain ticks.

consensual (kōnsēn'sūāl) *a.* [L. *consensus*, agreement.] *Appl.* involuntary action correlated with voluntary action; reacting to excitation of a corresponding organ; *appl.* contraction of both pupils when only one retina is directly stimulated.

consimilar (kōnsīm'ilār) *a.* [L. *consimilis*, entirely similar.] Similar in all respects; with both sides alike, as some diatoms.

consociation (kōn'sōsiā'shūn) *n.* [L. *consociatio*, partnership.] A unit of a plant association, characterised by a single dominant species.

consociates (kōnsō'siēz) *n.* [L. *cum*, together; *socius*, fellow.] A consociation representing a stage in the process of succession.

consortes (kōnsōr'tēz) *n. plu.* [L. *consortes*, partners.] Associate organisms other than symbionts, commensals, or hosts and parasites. *Sing.* consors.

consortium (kōnsōr'tiūm) *n.* [L. *consortium*, partnership.] The compound thallus of lichens.

conspersa (kōnspērs') *a.* [L. *conspersus*, besprinkled.] Densely scattered; *appl.* dot-like markings, pores, etc.

constitutive (kōn'stītūtiv) *a.* [L. *constituere*, to establish.] Naturally present in an organism; *appl.* enzymes, *opp.* adaptive or inducible enzymes.

constricted (kōnstrīk'tēd) *a.* [L. *constrictus*, drawn together.] Narrowed; compressed at regular intervals.

constriction (kōnstri'k'shūn) *n.* [L. *constrictus*, drawn together.] A constricted part or place, as a node of Ranvier; non-spiralising chromosome segment at metaphase, either associated with the centromere, or acentric, or controlled by the nucleolus.

constrictor (kōnstri'k'tōr) *n.* [L. *constrictus*, drawn together.] A muscle which compresses or constricts, *e.g.*, constrictor pharyngis, *c. urethrae*.

consute (kōn'sūt, kōnsūt') *a.* [L. *consuere*, to sew together.] With stitch-like markings; *appl.* elytra of certain beetles.

contabescence (kōn'tābēs'ēns) *n.* [L. *contabescere*, to waste away.] Abortion or atrophy of stamens.

contact receptor,—a receptor in epidermis or in dermis.

context (kōn'tēkst) *n.* [L. *cum*, together; *texere*, to weave.] The layers developed between hymenium and true mycelium in certain fungi.

continuity (kōntīnū'itī) *n.* [L. *continuus*, continuous.] Succession without a break, especially continuity of germ plasm.

contorted (kōntōr'tēd) *a.* [L. *contortus*, twisted together.] Twisted; *appl.* aestivation in which one leaf overlaps the next with one margin, and is overlapped by the previous on the other.

contortuplicate (kōntōr'tūplikāt) *a.* [L. *cum*, with; *torquere*, to twist; *plicare*, to fold.] *Appl.* bud with contorted and plicate leaves.

contour (kōn'toor) *n.* [F. *contour*, circuit.] Outline of a figure or body; *appl.* outermost feathers that cover the body of a bird.

contractile (kōntrāk'til) *a.* [L. *cum*, together; *trahere*, to draw.] Capable of contracting.

contractile cell,—any cell in a sporangium or an anther wall which by hygroscopic contraction helps to open the organ.

contractile fibre-cells, — elongated, spindle-shaped, more or less polyhedral, nucleated muscle-cells, containing a central bundle of fibrillae.

contractile vacuole,—a small spherical vesicle, found in cytoplasm of many Protista, with excretory or hydrostatic function.

contractility (kōn'trākil'itī) *n.* [L. *cum*, together, *trahere*, to draw.] The power by which muscle-fibres are enabled to contract.

contractin,—presumable neurohumor inducing contraction of chromatophores in crustaceans. *Opp.* expanting.

contracture (kōntrāk'tūr) *n.* [L. *contractus*, drawn together.] Contraction of muscles persisting after stimulus has been removed.

contra-deciduate (kōn'trādēs'id'ūāt) *a.* [L. *contra*, opposite to; *decidere*, to fall off.] *Appl.* foetal placenta and distal part of allantois.

contralateral (kōn'trālāt'ērāl) *a.* [L. *contra*, opposite to; *latus*, side.] *Pert.* or situated on the opposite side, *opp.* ipsilateral.

contranant (kōn'trānā'tānt) *a.* [L. *contra*, against; *natare*, to swim.] Swimming or migrating against the current, *opp.* denantant.

conuli (kō'nūli) *n. plu.* [Dim. of L. *conus*, cone.] Tent-like projections on surface of certain sponges caused by principal skeletal elements.

conus (kō'nūs) *n.* [L. *conus*, cone.] Any cone-shaped structure, as conus arteriosus, a structure between ventricle and aorta in fishes and amphibians; diverticulum of right ventricle from which pulmonary artery arises; conus medullaris, the tapering end of spinal cord.

convergence (kōnvēr'jēns) *n.* [L. *convergere*, to incline together.] The development of similar characters in organisms belonging to different groups; heterogenetic homoeomorphosis; homoplasia; coordinated movement of eyes when focusing a near point.

convolute (kōn'völūt) *a.* [L. *cum*, together; *volvere*, to wind.] Rolled together; *appl.* leaves and cotyledons; *appl.* shells in which outer whorls overlap inner; coiled; convoluted, *appl.* parts of renal tubule.

convolution (kōn'vōlū'shūn) *n.* [L. *cum*, together; *volvere*, to wind.] A coiling or twisting, as of brain, intestine.

coprobiont (kōp'rōbiōnt) *n.* [Gk. *kopros*, dung; *bionai*, to live.] Any coprophytic or coprozoic organism; coprophage.

coprodaeum (kōp'rōdē'ūm) *n.* [Gk. *kopros*, dung; *odos*, way.] The division of cloaca which receives rectum.

coprolite (kōp'rōlit) *n.* [Gk. *kopros*, dung; *lithos*, stone.] Petrified faeces.

coprophage,—coprobiont.

coprophagous (kōprōf'āgūs) *a.* [Gk. *kopros*, dung; *phagein*, to eat.] Feeding on dung; *appl.* insects.

coprophil (kōp'rōfil) *a.* [Gk. *kopros*, dung; *philos*, loving.] *Appl.* dung bacteria and flagellates; coprophytic.

coprophyte (kōp'rōfit) *n.* [Gk. *kopros*, dung; *phyton*, plant.] A dung-inhabiting plant. *a.* Coprophytic.

coprozoic (kōp'rōzō'ik) *a.* [Gk. *kopros*, dung; *zoon*, animal.] Inhabiting faeces, as some protozoa.

coprozoite (kōp'rōzō'it) *n.* [Gk. *kopros*, dung; *zoon*, animal.] A dung-inhabiting or coprozoic animal.

copula (kōp'ulā) *n.* [L. *copula*, bond.] A ridge in development of the tongue, formed by union of ventral ends of second and third arches; basihyal or os interglossum in certain reptiles; any bridging or connecting structure.

copulant (kōp'ulānt) *n.* [L. *copulare*, to couple.] A unit in conjugation with another, as nuclei, cells, hyphae, thalli, etc.

copularium (kōp'ulā'rīūm) *n.* [L. *copula*, bond.] A cyst formed around two associated gametocytes, in gregarines.

copulation (kōp'ulā'shūn) *n.* [L. *copula*, bond.] Sexual union; coition; in protozoa, complete fusion of two individuals; conjugation, as in yeasts.

coracoid (kōr'ākoid) *a.* [Gk. *korax*,

crow; *eidos*, form.] *Appl.* or *pert.* bone or part of the pectoral girdle between scapula and sternum; *appl.* ligament which stretches over the suprascapular notch.

coracoid process,—the rudimentary coracoid element fused to the scapula in most mammals.

coralliferous (kōrālīf'ērūs) *a.* [Gk. *korallion*, coral; L. *ferre*, to bear.] Coral-forming; containing coral.

coralliform,—coralloid.

coralligenous (kōrālīj'énūs) *a.* [Gk. *korallion*, coral; *gennaein*, to produce.] Coral-forming.

coralline (kōr'ālin) *a.* [Gk. *korallion*, coral.] Resembling a coral; *appl.* Hydrozoa and Polyzoa; composed of coral; *appl.* certain Algae; *appl.* a Pliocene crag or deposit containing fossil Polyzoa and Mollusca.

corallite (kōr'ālit) *n.* [Gk. *korallion*, coral.] Cup of a single polyp of coral.

coralloid (kōr'āloid) *a.* [Gk. *korallion*, coral; *eidos*, form.] Resembling, or branching like a coral; *appl.* gleba, roots, etc.

corallum (kōrāl'ūm) *n.* [Gk. *korallion*, coral.] Skeleton of compound coral.

corbicula (kōrbīk'ūla) *n.* [Dim. of L. *corbis*, basket.] Basket-like arrangement of a teleutosorus or telium; *plu.* of corbiculum. *Plu.* corbiculae.

corbiculum (kōrbīk'ulūm) *n.* [L. dim. of *corbis*, basket.] Fringe of hair on insect tibia; the pollen-collecting apparatus of a bee. *Plu.* corbicula.

corbula (kōr'būlā) *n.* [L. *corbula*, little basket.] The phylactocarp of Aglaophenia, etc., a stem with alternate branches rising upwards and forming a pod-like structure.

cord (kōrd) *n.* [Gk. *chorde*, cord.] Any cord-like structure, as spinal cord, spermatocord.

cordate (kōr'dāt) *a.* [L. *cor*, heart.] Heart-shaped; cordiform.

cordiform tendon,—the central aponeurosis of the diaphragm.

cordylus (kôrdĩ'lus) *n.* [Gk. *kordyle*, swelling.] An intertentacular exumbrel structure with core of vacuolated cells and flattened ectoderm.

coremata (kôrē'mätä) *n. plu.* [Gk. *korema*, broom.] Paired sacs bearing hairs, on membrane between seventh and eighth abdominal segments, accessory copulatory organ in moths.

coremiform (kôrē'mĩfôrm) *a.* [Gk. *korema*, broom; *L. forma*, shape.] Formed like a broom or sheaf.

coremiospore (kôrē'mĩôspôr) *n.* [Gk. *korema*, broom; *sporos*, seed.] One of a series of spores in the top of a coremium.

coremium (kôrē'mĩüm) *n.* [Gk. *korema*, broom.] A sheaf-like aggregation of conidiophores, or of hyphae.

coriaceous (kôriä'shüs) *a.* [L. *corium*, leather.] Leathery; *appl.* leaves.

corium (kô'rĩüm) *n.* [L. *corium*, leather.] The middle division of an elytron; deeper-seated layer of the skin, consisting of a vascular connective tissue; cutis vera; derma.

cork (kôrk) *n.* [Sp. *alcorque*, cork.] A tissue derived usually from outer layer of cortex in woody plants.

cork-cambium,—phellogen, *q.v.*

corm (kôrm) *n.* [Gk. *kormos*, trunk.] An enlarged solid subterranean stem, rounded in shape, composed of two or more internodes and covered externally by a few thin membranous scales or cataphyllary leaves; cormus, *q.v.*

cormel (kôr'mêl) *n.* [Gk. *kormos*, trunk.] A secondary corm produced by an old corm.

cormidium (kôrmĩd'ĩüm) *n.* [Gk. *kormos*, trunk; *idion*, *dim.*] An aggregation of individuals in a siphonophore, borne on the coenosarc and capable of liberation therefrom.

cormoid (kôr'moid) *a.* [Gk. *kormos*, trunk; *eidos*, form.] Like a corm.

cormophylogeny (kôr'môflôj'ëni) *n.* [Gk. *kormos*, trunk; *phyle*, tribe; *genos*, offspring.] Development of families or races.

cormophyte (kôr'môfit) *n.* [Gk. *kormos*, trunk; *phyton*, plant.] A plant which possesses stem and root. *Opp.* thallophyte.

cormous (kôr'müs) *a.* [Gk. *kormos*, trunk.] Corm-producing.

cormus (kôr'müs) *n.* [Gk. *kormos*, tree-trunk.] A corm; body of a seed-plant, *opp.* thallus; body or colony of a compound animal.

cornea (kôr'něä) *n.* [L. *corneus*, horny.] The transparent covering on anterior surface of eyeball; outer transparent part of each element of a compound eye.

corneagen (kôr'něäjën) *a.* [L. *cornu*, horn; Gk. *-genes*, producing.] Cornea-producing; *appl.* cells immediately below cuticle, which secrete cuticular lens and are renewed on ecdysis.

corneal (kôr'něäl) *a.* [L. *corneus*, horny.] *Pert.* the cornea.

corneoscute (kôr'něöskût) *n.* [L. *corneus*, horny; *scutum*, shield.] An epidermal scale.

corneous (kôr'něüs) *a.* [L. *corneus*, horny.] Horny; *appl.* sheath covering bill of birds.

cornicle (kôr'nikl) *n.* [L. *corniculum*, little horn.] A wax-secreting organ of aphids; corniculum, *q.v.*

corniculate (kôrnĩk'ülät) *a.* [L. *corniculum*, little horn.] Having small horns.

corniculate cartilages,—two small, conical, elastic cartilages articulating with apices of aryaenoids; Santorini's cartilages, cornicula laryngis.

corniculum (kôrnĩk'ülüm) *n.* [L. *dim.* of *cornu*, horn.] A small horn or horn-like process.

cornification (kôr'nĩfikä'shün) *n.* [L. *cornu*, horn; *facere*, to make.] Formation of outer horny layer of epidermis.

cornua (kôr'nüä) *n. plu.* [L. *cornu*, horn.] Horns; horn-like prolongations, as of bones, nerve tissues, cavities, etc.; the dorsal, lateral, and ventral columns of grey substance in spinal cord. *Sing.* cornu.

cornucopia (kôr'nūkō'piä) *n.* [L. *cornu*, horn; *copia*, plenty.] Part of taeniae of fourth ventricle, covering choroid plexus.

cornule (kôr'nül) *n.* [L. *cornulum*, *dim.* of *cornu*, horn.] A small horn-like process; one of the horny jaw-plates of Ornithorhynchus.

cornute (kôrnüt') *a.* [L. *cornutus*, horned.] With horn-like processes.

corolla (kôröl'ä) *n.* [L. *corolla*, small crown.] The petals of a flower.

corollaceous (kôrölä'shüs) *a.* [L. *corolla*, crown.] *Pert.* a corolla.

corolliferous (kôrölif'ërüs) *a.* [L. *corolla*, small crown; *ferre*, to bear.] Having a corolla.

corona (kôrönä) *n.* [L. *corona*, crown.] A cup-shaped body formed by union of scales on perianth leaves, as in daffodil; theca and arms of a crinoid; echinoid test excepting apical and antapical plates; ciliated disc or circular band of certain animals; head or upper portion of any structure.

corona radiata,—layer of cells surrounding mammalian egg; fibres of internal capsule of brain.

coronal (kôrönäl) *a.* [L. *corona*, crown.] *Pert.* corona; *appl.* suture between frontal and parietal bones; situated in the coronal sutural plane; *appl.* later roots of grasses, *opp.* seminal.

coronary (kôrönäri) *a.* [L. *corona*, crown.] Crown-shaped or crown-like; encircling; *appl.* arteries, bones, sinus, ligaments, plexus, vein.

coronary arteries,—arteries supplying tissue of heart; labial arteries.

coronary bone,—a small conical bone in mandible of reptiles; small pastern bone of horse.

coronary sinus,—channel receiving most cardiac veins and opening into right auricle.

coronate (kôrönät) *a.* [L. *corona*, crown.] Having a corona; having a row of tubercles encircling a structure, or mounted on whorls of spiral shells.

coronet (kôrönët) *n.* [L. *corona*, crown.] The burr of an antler.

coronoid (kôr'önoid) *a.* [Gk. *koronis*, crook-beaked; *eidos*, form.] Shaped like a beak; *appl.* processes. [L. *corona*, crown.] *n.* Coronary bone of reptiles.

coronula (kôrön'ülä) *n.* [*Dim.* of L. *corona*, crown.] A group of cells forming a crown on the oosphere, as in Charophyta.

corpora (kôr'pöra) *n. plu.* [L. *corpus*, body.] Bodies. *See* corpus.

corpora adiposa,—fat-bodies, *q.v.*

corpora albicantia,—white bodies or scars formed in ovarian follicle after disintegration of luteal cells; corpora mamillaria, ganglia below posterior part of third ventricle.

corpora allata,—paired ovoid whitish endocrine glands in insects.

corpora amylacea,—spherical bodies of nucleic acid and protein, more numerous with age, in alveoli of prostate gland; amyloid bodies.

corpora arenacea,—brain sand.

corpora bigemina,—the optic lobes of vertebrate brain, corresponding to the superior colliculi of corpora quadrigemina of mammals.

corpora cardiaca,—neuroglandular bodies between cerebral ganglia and corpora allata, in some insects.

corpora cavernosa,—erectile masses of tissue, forming anterior part of body of penis; erectile tissue of clitoris.

corpora mamillaria,—two white bodies enclosing grey matter in hypothalamus, beneath floor of third ventricle; corpora albicantia.

corpora pedunculata,—mushroom bodies, groups of association cells with axons forming bundles in protocerebrum of insects.

corpora quadrigemina,—four rounded eminences or colliculi which form dorsal part of mesencephalon.

corpus (kôr'püs) *n.* [L. *corpus*, body.] Body; any fairly homogeneous structure which forms part of an organ; core of apical meristem within the tunica. *Plu.* corpora.

corpus albicans,—white tissue replacing corpus luteum in non-pregnancy; mamillary body.

corpus callosum,—the broad transverse band of white substance connecting the cerebral hemispheres.

corpus fibrosum,—fibrous tissue remaining after disintegration of corpus luteum.

corpus geniculatum,—geniculate body, *q.v.*

corpus haemorrhagicum,—body developed from ruptured Graafian follicle around blood clot, and later developing into corpus luteum.

corpus highmoreanum,—mediastinum testis, *q.v.*

corpus luteum,—the glandular body developed from a Graafian follicle after extrusion of ovum; yellow body.

corpus spongiosum,—a mass of erectile tissue forming posterior wall of penis; corpus cavernosum urethrae.

corpus sterni,—sternebrae fused into a single mesosternal bone: mesosternum or gladiolus.

corpus striatum,—a mass of grey matter containing white nerve fibres and consisting of the caudate nucleus which projects into the lateral ventricle, and of the lenticular nucleus.

corpuscle (kôr'pûsl, kôrpûs'l) *n.* [L. *corpusculum*, small body.] A protoplasmic cell, floating freely in a fluid, or embedded in a matrix; any minute particle, as in a cell; any of various small multicellular structures, as Malpighian corpuscle, tactile corpuscle, etc.

correlation (kôr'êlâ'shûn) *n.* [L.L. *correlatio*, relationship.] Mutual relationship; proportional growth; interdependence of characters, particularly of quantitative characters, measured by correlation coefficient which is plus or minus one if characters are exactly inter-related, and zero if entirely unrelated; combination of nervous impulses in sensory centres, resulting in adaptive reactions; determination of the relation of homotaxis to geologic time.

correlator (kôr'êlâtôr) *n.* [L.L. *correlatio*, relationship.] A diffusible substance correlating activities of coleoptile tip and hypocotyl; auxin, *q.v.*

corrugator (kôr'oogâtôr) *a.* [L. *corrugare*, to wrinkle.] Wrinkled or wrinkling; *appl.* muscles.

cortex (kôr'têks) *n.* [L. *cortex*, bark.] The extrastelar fundamental tissue of the sporophyte; outer or more superficial part of an organ.

cortical (kôr'tikâl) *a.* [L. *cortex*, bark.] *Pert.* the cortex.

corticate (kôr'tikât) *a.* [L. *cortex*, bark.] Having a special outer covering.

corticiferous (kôr'tisif'êrûs) *a.* [L. *cortex*, bark; *ferre*, to carry.] Forming or having a bark-like cortex.

corticolous (kôrtik'olûs) *a.* [L. *cortex*, bark; *colere*, to inhabit.] Inhabiting, or growing on, bark.

corticospinal (kôr'tikôspi'nâl) *a.* [L. *cortex*, bark; *spina*, spine.] *Pert.* or connecting cerebral cortex and spinal cord; *appl.* tracts.

corticosterone,—the active constituent of adrenal cortical hormone; $C_{21}H_{30}O_4$.

corticostriate (kôr'tikôstri'ât) *a.* [L. *cortex*, bark; *stria*, channel.] *Appl.* fibres which join corpus striatum to cerebral cortex.

corticotropic, **corticotropic**,—adrenocorticotrophic, *q.v.*

cortin (kôr'tîn) *n.* [L. *cortex*, bark.] Adrenal cortex extract, containing cortical hormones.

cortina (kôrtē'nâ) *n.* [L. *cortina*, vault.] The velum in some agarics.

cortinate (kôr'tînât) *a.* [L. *cortina*, vault.] Having a velum; of a cobweb-like texture.

Corti's membrane. [*A. Corti*, Italian histologist]. Tectorial membrane covering spiral organ of Corti.

Corti's organ, the organon spirale, on inner portion of membrana basilaris of ear.

Corti's rods,—double row of arching rods based on basilar membrane and forming the spiral tunnel of Corti.

coruscation (kōrūskā'shūn) *n.* [L. *coruscatio*, flash.] Twinkle, rapid fluctuation in a flash or oscillation in light emission, as of fire-flies.

corymb (kōr'imb) *n.* [Gk. *korymbos*, cluster of flowers.] A raceme with lower pedicels elongated so that the top is nearly flat.

corymbose (kōrīm'bōs) *a.* [Gk. *korymbos*, cluster of flowers.] *Pert.* or like a corymb; arranged in a corymb; corymbous.

coscinoid (kōs'sinoid) *a.* [Gk. *koskinon*, sieve; *eidos*, form.] Sieve-like.

cosmine (kōs'mīn) *n.* [Gk. *kosmios*, regular.] The outer layer of dentine-like material in cosmoid and ganoid scales.

cosmoid (kōs'moid) *a.* [Gk. *kosmios*, regular; *eidos*, form.] Having an outer periodically resorbed layer of cosmine, *appl.* dermal bones, scales, and lepidotrichia in Crossopterygii.

cosmopolitan (kōzmōpōl'itān), **cosmopolite** (kōzmōp'ōlit) *a.* [Gk. *kosmos*, world; *polites*, citizen.] World-wide in distribution.

costa (kōs'tā) *n.* [L. *costa*, rib.] A rib; anything rib-like in shape, as a ridge on shell, coral, etc.; anterior vein, or margin, of insect wing; comb-rib or swimming-plate of Ctenophora; structure at base of undulating membrane in Trichomonadidae. *Plu.* costae.

costaeform (kōs'tēfōrm) *a.* [L. *costa*, rib; *forma*, shape.] Rib-like; *appl.* unbranched parallel leaf-veins.

costal (kōs'tāl) *a.* [L. *costa*, rib.] *Pert.* ribs or rib-like structures; *appl.* bony shields of Chelonia; *pert.* costa of insect wing; *pert.* primary brachial series in Crinoids; *pert.* a main rib.

costalia (kōstā'līā) *n. plu.* [L. *costa*, rib.] The supporting plates in theca of Cladoidea.

costate (kōs'tāt) *a.* [L. *costa*, rib.] With one or more longitudinal ribs; with ridges or costae.

coterminous (kōtēr'mīnūs) *a.* [L. *cum*, with; *terminus*, end.] Of similar distribution; bordering on.

cotyle (kōt'ilē) *n.* [Gk. *kotyle*, cup.] A cup-like cavity; acetabulum.

cotyledon (kōtīlē'dōn) *n.* [Gk. *kotyle*, cup.] The seed-leaf, primary or first leaf of an embryonic sporophyte; a patch of villi on mammalian placenta.

cotyledonary (kōtīlē'dōnārī) *a.* [Gk. *kotyle*, cup.] *Pert.* cotyledons; with villi grouped in cotyledons, *appl.* placenta.

cotyliform,—cotylid.

cotylid (kōt'īloid) *a.* [Gk. *kotyle*, cup; *eidos*, form.] Cup-shaped; *pert.* the acetabular cavity.

cotylophorous (kōtīlōf'ōrūs) *a.* [Gk. *kotyle*, cup; *pherein*, to bear.] With a cotyledonary placenta.

cotype (kō'tip) *n.* [L. *cum*, with; *typus*, image.] An additional type specimen, frequently collected in same place at same time, or a specimen from a description of which, along with others, the type is defined; syntype.

covariation (kō'vārīā'shūn) *n.* [L. *con*, with; *varius*, diverse.] Correlation, *q.v.*

cover scales,—small scales arranged spirally and developed directly on the axis of a cone of Coniferae; bract scales.

covert (kūv'ért) *n.* [F. *couvrir*, to cover.] *Appl.* feathers covering bases of quills in birds.

cowled (kowld) *a.* [L. *cucullus*, hood.] Furnished with or shaped like a hood; cucullate.

Cowper's glands [W. Cowper, English surgeon]. Bulbo-urethral glands, *q.v.*

coxa (kōk'sā) *n.* [L. *coxa*, hip.] Proximal joint of leg of an insect or arachnid; the hip.

coxal (kōk'sāl) *a.* [L. *coxa*, hip.] *Pert.* the coxa; *appl.* glands; *pert.* the hip.

coxite (kōk'sīt) *n.* [L. *coxa*, hip.] One of paired lateral plates in contiguity with insect sternum; limb base bearing stylus in Thysanura.

coxocerite (kōk'sōsērīt) *n.* [L. *coxa*, hip; Gk. *keras*, horn.] The proximal or basal joint of insect antenna.

coxopleurite,—catapleurite, *q.v.*

coxopodite (kōks'ōpōdīt) *n.* [L. *coxa*, hip; Gk. *pous*, foot.] The proximal part of protopodite of crustacean limb; coxa of spiders.

coxosternum (kōk'sōstēr'nūm) *n.* [L. *coxa*, hip; *sternum*, breast-bone.] Plate formed by fusion of coxites and sternum; vinculum, in Lepidoptera.

crampon (krām'pōn) *n.* [F. *crampon*, adventive root.] An aerial root, as in ivy.

cranial (krā'nīāl) *a.* [Gk. *kranion*, skull.] *Pert.* skull, or that part which encloses the brain; *appl.* bones, fossae, nerves, muscles, blood-vessels, etc.

craniate (krā'nīāt) *a.* [Gk. *kranion*, skull.] Having a skull.

cranium (krā'nīd'īūm) *n.* [Gk. *kranion*, skull; *idion*, *dim.*] Glabella together with fixed genae, in trilobites.

cranihaemal (krā'nihē'māl) *a.* [Gk. *kranion*, skull; *haima*, blood.] *Appl.* anterior lower portion of a sclerotome.

cranineural (krā'nīnū'rāl) *a.* [Gk. *kranion*, skull; *neuron*, nerve.] *Appl.* anterior upper portion of a sclerotome.

craniology (krā'nīōl'ōjī) *n.* [Gk. *kranion*, skull; *logos*, discourse.] The study of the skull.

craniometry (krā'nīōm'ētrī) *n.* [Gk. *kranion*, skull; *metron*, measure.] The science of the measurement of skulls.

cranosacral (krā'nīōsā'krāl) *a.* [Gk. *kranion*, skull; L. *sacer*, sacred.] *Pert.* skull and sacrum; *appl.* nerves, the parasympathetic system.

cranium (krā'nīūm) *n.* [Gk. *kranion*; L. *cranium*, skull.] The skull of any craniate, or more particularly, that part enclosing the brain.

craspedodromous (krās'pēdōd'rō-mūs) *a.* [Gk. *kraspedon*, edge; *dramein*, to run.] With nerves running directly from mid-rib to margin.

craspedote (krās'pēdōt) *a.* [Gk.

kraspedon, edge.] Having a velum.

craspedum (krās'pēdūm) *n.* [Gk. *kraspedon*, edge.] A mesenteric filament of sea-anemones.

crassula (krās'ulā) *n.* [L. *crassus*, thick.] Thickened bar on middle lamella between two bordered pits in tracheids of wood of conifers; bar of Sanio. *Plu.* crassulae.

crateriform (krātēr'ifōrm) *a.* [L. *crater*, bowl; *forma*, shape.] Bowl-shaped; *appl.* receptacle.

craticular (krātīk'ulār) *a.* [L. *craticula*, gridiron.] Crate-like; *appl.* stage in life-history of a diatom where new valves are formed before the old are lost.

creatine (krē'ātin) *n.* [Gk. *kreas*, flesh.] A nitrogenous substance found in muscles, brain, and blood of vertebrates; $C_4H_9O_2N_3$.

creatinine (krē'ātinīn) *n.* [Gk. *kreas*, flesh.] A katabolic product in muscle and other tissues, excreted in urine; $C_4H_7ON_3$.

cremaster (krēmās'tēr) *n.* [Gk. *kremaistos*, hung.] A thin muscle along the spermatic cord; a stout terminal abdominal spine in subterranean insect pupae; the anal hooks for suspension of pupae.

cremocarp (krēm'ōkârp) *n.* [Gk. *kremaimai*, to hang down; *karpōs*, fruit.] An inferior, dry, indehiscent, bilocular, two-seeded fruit.

crena (krē'nā) *n.* [L. *crena*, notch.] Notch in a crenate margin, as of leaf; cleft, as anal cleft; deep groove, as longitudinal sulcus of heart.

crenate (krē'nāt) *a.* [L. *crena*, notch.] With scalloped margin.

crenation (krēnā'shūn) *n.* [L. *crenatus*, notched.] A scalloped margin, or rounded tooth, as of leaf; crenature; notched or wrinkled appearance, as of erythrocytes exposed to hypertonic solutions.

crenulate (krēn'ulāt) *a.* [*Dim.* of L. *crena*, notch.] With margins minutely crenate; crenellated, crenulated.

crepis (krē'pīs) *n.* [Gk. *krepis*, foundation.] The fundamental spicule by deposition of silica upon which a desma is formed.

crepitation (krēpītā'shūn) *n.* [L. *crepitare*, to crackle.] In insects, the discharge of a fluid with an explosive sound.

crepuscular (krēpūs'kūlār) *a.* [L. *crepusculum*, dusk.] *Pert.* dusk; flying before sunrise or in twilight.

crescent (krēs'ēnt) *n.* [L. *crescere*, to grow.] A crescentic structure.

crescentiform (krēsēn'tifōrm) *a.* [L. *crescere*, to grow; *forma*, shape.] Crescent-shaped; crescentic; *appl.* mouth of Sipunculoidea.

crescents of Gianuzzi, — small crescent-shaped bodies in mucous alveoli of the salivary glands; demilunes of Heidenhain.

crest (krēst) *n.* [L. *crista*, crest.] A ridge on a bone; a fleshy longitudinal ridge, as in newts; crown or feather tuft on head of birds; a ridge in certain seeds.

Cretaceous (krētā'shūs) *a.* [L. *creta*, chalk.] *Appl.*, and *pert.*, the last period of the Mesozoic era; Upper Cretaceous in North America.

cribellum (kribēl'ūm) *n.* [L. *dim.* of *cribrum*, sieve.] A plate perforated by openings of silk ducts in certain spiders; a perforated chitinous plate in some insects.

cribriform (krib'rifōrm) *a.* [L. *cribrum*, sieve; *forma*, shape.] Sieve-like.

cribriform organ, — folded membrane carrying papillae in interradial angles of certain starfishes.

cribriform plate, — the portion of ethmoid, or of mesethmoid, perforated by many foramina for exit of olfactory nerves; lamina cribrosa.

cribrose (krib'rōs) *a.* [L. *cribrum*, sieve.] Having sieve-like pitted markings.

cricoid (kri'koid) *a.* [Gk. *krikos*, ring; *eidos*, form.] Ring-like; *appl.* cartilage in larynx, articulating with thyroid and arytaenoid

cartilages; *appl.* placenta lacking villi on central part of disc, as in certain Edentata.

crinome (krīn'ōm) *n.* [L. *crinis*, hair.] Network formed in cytoplasm by basophil substances reacting to vital staining.

criocone (kri'ōkōn) *a.* [Gk. *krios*, ram; *konos*, cone.] With uncoiled spiral shaped like ram's horn; *appl.* shell of certain ammonites.

crissal (kris'āl) *a.* [L. *crissare*, to move haunches.] *Pert.* the crissum.

criss-cross, — *appl.* inheritance when offspring resemble the parent of the opposite sex.

crissum (kris'ūm) *n.* [L. *crissare*, to move haunches.] The circumloacal region of a bird; vent-feathers or lower tail-coverts.

crista (kris'tā) *n.* [L. *crista*, crest.] A crest or ridge; projection from ectoloph into median valley in lophodont molars; a fine membrane attached to body of certain spirochaetes; ligule of palm-leaves.

crista acustica, — thickening, covered with neuroepithelium, of membrane lining ampullae of semicircular canals; a chordotonal structure in Orthoptera.

crista galli, — anterior median process of cribriform plate.

crista urethralis, — verumontanum, *q.v.*

cristate (kris'tāt) *a.* [L. *cristatus*, crested.] Crested; cristiform, shaped like a crest.

crochet (krōshā') *n.* [F. *crochet*, small hook.] The projection of the protoloph in lophodont molars; a balancer in larval salamanders; a larval locomotory hook in insects.

crop (krōp) *n.* [M.E. *croppe*, crawl.] Sac-like dilatation of gullet of a bird; a similar structure in alimentary canal of insect or worm; ingluvies.

crosier (krō'zhyēr) *n.* [M.E. *croce*, crook.] Circinate young frond of fern; hook formed by terminal cells of ascogenous hyphae; flat spiral shell, as of Spirula.

cross (krös) *n.* [M.E. *crois*, cross.] An organism produced by mating parents of different breeds. *v.* To hybridise.

crossing - over, — interchange of corresponding chromosome segments by homologous pairs of chromosomes during maturation.

crossover, — a chromatid formed as a result of crossing-over.

crotaphite (kröt'äfit) *n.* [Gk. *krotaphos*, side of forehead.] The temporal fossa.

crotchet (kröch'ët) *n.* [F. *crochet*, small hook.] A curved chaeta, notched at the end; uncinus; clavus, in spiders; crochet of larval insects.

crown (krown) *n.* [L. *corona*, crown.] The exposed part of a tooth, especially the grinding surface; distal part of antler; crest; head; cup and arms of a crinoid; corona, *q.v.*; leafy upper part of a tree.

crozier, — crosier, *q.v.*

cruciate (kroo'shiät, kroo'siät) *a.* [L. *crux*, cross.] Cruciform; with leaves or petals in form of a cross; X-shaped or +-shaped, *appl.* muscles, ligaments; crucial.

cruciform (kroos'iförm) *a.* [L. *crux*, cross; *forma*, shape.] Arranged like the points of a cross; *appl.* division, promitosis in Plasmodiophorales.

crumena (krümē'nä) *n.* [L. *crumena*, purse.] A sheath for retracted stylets, as in Hemiptera.

cruor (kroo'ör) *n.* [L. *cruor*, blood.] The clots in coagulated blood.

cruorin (kroo'örin) *n.* [L. *cruor*, blood.] Haemoglobin.

crura (kroo'rä) *n. plu.* [L. *crura*, legs.] The shanks; leg-like or columnar structures; lumbar part of diaphragm muscle fibres; proximal processes of corpora cavernosa penis; branches of incus and stapes; pillars of subcutaneous inguinal ring; posterior pillars of fornix; crura cerebri, *q.v.*

crura cerebri, — the cerebral peduncles, two cylindrical masses forming

the ventrolateral portion of mid-brain.

crural (kroo'räl) *a.* [L. *crus*, leg.] *Pert.* the thigh.

crureus (kroorē'ūs) *n.* [L. *crus*, leg.] Vastus intermedius muscle of thigh.

crus (krüs) *n.* [L. *crus*, leg.] The shank; any leg-like organ; common duct of superior and posterior semicircular canals; anterior end of helix of external ear. *Plu.* crura.

crusta (krüs'tä) *n.* [L. *crusta*, shell.] Ventral part or base or pes of cerebral peduncles; cement layer of teeth, crusta petrosa.

crustaceous (krüstä'shüs) *a.* [L. *crusta*, shell.] With crustacean characteristics; crustose, *q.v.*

crustose (krüs'tös) *a.* [L. *crusta*, shell.] Forming crusts on substratum, *appl.* lichens.

crymophil (kri'möfil) *a.* [Gk. *krymos*, frost; *philein*, to love.] Cryophil, psychrophil.

cryophil (kri'öfil) *a.* [Gk. *kryos*, chill; *philein*, to love.] Thriving at a low temperature; cryophilic.

cryophylactic (kri'öfiläk'tik) *a.* [Gk. *kryos*, frost; *phylaktikos*, preservative.] Resistant to low temperatures; *appl.* bacteria.

cryoplankton (kri'öplängk'tön) *n.* [Gk. *kryos*, frost; *planktos*, wandering.] Glacial and polar plankton; algal communities thriving on snow.

cryoscopic (kri'ösköp'ik) *a.* [Gk. *kryos*, frost; *skopein*, to view.] *Appl.* method of determining osmotic pressure, using a freezing-point depression.

crypt (kript) *n.* [Gk. *kryptos*, hidden.] A simple glandular tube or cavity; pit of stoma; depression in uterine mucous membrane.

cryptic (krip'tik) *a.* [Gk. *kryptos*, hidden.] *Appl.* protective coloration facilitating concealment; *appl.* polymorphism due to presence of recessive genes; *appl.* species extremely similar as to external appearance but which do not normally interbreed.

cryptocarp (kríp'tókârp) *n.* [Gk. *kryptos*, hidden; *karpós*, fruit.] A fruit-like structure, the sporophyte phase in red algae; cystocarp.

cryptogam (kríp'tögâm) *n.* [Gk. *kryptos*, hidden; *gamos*, union.] A plant without apparent reproductive organs; a spore-plant. *Cf.* phanerogam.

cryptogene (kríp'tøjēn) *a.* [Gk. *kryptos*, hidden; *genos*, origin.] Of unknown descent; having an indeterminate phylogeny.

cryptohaplomitosis (kríp'töhâp'lô-mítō'sis) *n.* [Gk. *kryptos*, hidden; *haploos*, simple; *mitos*, thread.] Type of cell-division in some flagellates where chromatin divides into two masses which pass to opposite poles without spireme-formation.

cryptomere (kríp'tômēr) *n.* [Gk. *kryptos*, hidden; *meros*, part.] A hidden recessive hereditary factor.

cryptomitosis (kríp'tômitō'sis) *n.* [Gk. *kryptos*, hidden; *mitos*, thread.] Division of unicellular organisms, in which chromatin assemblies in the equatorial region without apparent chromosome formation.

cryptonema (kríp'tônē'mă) *n.* [Gk. *kryptos*, hidden; *nema*, thread.] A filamentous outgrowth or paraphysis in a cryptostoma.

cryptoneurous (kríp'tônū'rūs) *a.* [Gk. *kryptos*, hidden; *neuron*, nerve.] With no definite or distinct nervous system.

cryptophyte (kríp'tôfit) *n.* [Gk. *kryptos*, hidden; *phyton*, plant.] A plant perennating by means of rhizomes, corms, or bulbs under ground, or of under water buds.

cryptoplasm (kríp'tôplāzm) *n.* [Gk. *kryptos*, hidden; *plasma*, form.] The non-granular portion of cytoplasm.

cryptoptile (kríp'tôtil, -ptil) *n.* [Gk. *kryptos*, hidden; *ptilon*, feather.] A feather filament, developed from papilla.

cryptorchid (kríptôr'kíd) *a.* [Gk. *kryptos*, hidden; *orchis*, testis.] Having testes abdominal in position.

cryptorhetic (kríp'törēt'ík) *a.* [Gk. *kryptos*, hidden; *rhein*, to flow.] Secreting internally; endocrine.

cryptosolenial (kríp'tösölē'niāl) *a.* [Gk. *kryptos*, hidden; *solen*, channel.] *Appl.* region of attachment of Malpighian vessels to hind-gut in certain Coleoptera.

cryptostomata (kríp'töstôm'ätä) *n. plu.* [Gk. *kryptos*, hidden; *stoma*, mouth.] Non-sexual conceptacles in Fucaceae. *Sing.* cryptostoma.

cryptozoic (kríp'tözō'ík) *a.* [Gk. *kryptos*, hidden; *zoon*, animal.] *Appl.* fauna dwelling in darkness, or under stones, bark, etc.

cryptozoite (kríp'tözō'it) *n.* [Gk. *kryptos*, hidden; *zoon*, animal.] Stage of sporozoite when living in tissues before entering blood.

crypts of Lieberkühn,—see Lieberkühn's crypts.

crystallin (krís'tälín) *n.* [Gk. *krySTALLOS*, ice.] A globulin which is the principal constituent of lens of eye.

crystalline (krís'tälín) *a.* [Gk. *krySTALLINOS*, crystalline.] Transparent; *appl.* various structures.

crystalline style,—a proteid hyaline rod with amylolytic function, in alimentary canal of some molluscs.

crystalloid (krís'táloid) *n.* [Gk. *krySTALLOS*, ice; *eidōs*, form.] A substance which in solution readily diffuses through an animal membrane; *opp.* colloid; a protein crystal found in certain plant cells.

crystal-sand,—a deposit of minute crystals of calcium oxalate, as in Solanaceae.

crystal-spore,—an isospore containing a crystal, of Radiolaria.

cteinophyte (tín'ôfit, ktín'ôfit) *n.* [Gk. *kteinein*, to kill; *phyton*, plant.] A parasitic plant, *e.g.* fungus, which destroys its host.

cteinotrophic (tí'nôtróf'ík, kti-) *a.* [Gk. *kteinein*, to kill; *trophē*, nourishment.] Parasitic and destroying the host, as cteinophytes.

ctene (tēn, ktēn) *n.* [Gk. *kteis*, comb.] The swimming-plates of ctenophores.

ctenidium (téníd'íum, kténíd'íum) *n.* [Gk. *kteis*, comb; *idion*, dim.] The respiratory apparatus in molluscs, feather-like or comb-like in appearance; a row of spines forming a comb in some insects.

ctenocyst (tén'ösíst, ktén'ösíst) *n.* [Gk. *kteis*, comb; *kystis*, bladder.] Aboral sense organ of Ctenophora.

ctenoid (tén'oid, ktén'oid) *a.* [Gk. *kteis*, comb; *eidōs*, form.] With comb-like margin, as scales.

ctenophoral (ténöf'öräl, kténöf'öräl) *a.* [Gk. *kteis*, comb; *pherein*, to bear.] Supplied with swimming-plates.

ctenose (tén'ös, ktén'ös) *a.* [Gk. *kteis*, comb.] Comb-like; *appl.* type of seta.

ctetology (tétöl'öji, ktē-) *n.* [Gk. *ktetos*, acquired; *logos*, discourse.] Aspect of biology concerned with acquired characters.

ctetosome (tē'tösöm, ktē-) *n.* [Gk. *ktetos*, acquired; *soma*, body.] A supernumerary chromosome associated with a sex chromosome during meiosis.

cubical (kū'bikäl) *a.* [L. *cubeus*, cube.] *Appl.* cells as long as broad.

cubital (kū'bítäl) *a.* [L. *cubitalis*, of elbow.] *Pert.* the elbow; *appl.* joint including the humero-ulnar, humeroradial, and proximal radio-ulnar articulations; *pert.* the ulna or cubitus. *n.* A secondary wing-quill, connected with the ulna.

cubitus (kū'bítüs) *n.* [L. *cubitum*, elbow.] The ulna, forearm; primary vein in an insect wing.

cuboid (kū'boid) *a.* [Gk. *kyboeides*, cube-like.] Nearly cubic in shape. *n.* Outermost of distal tarsal bones.

cuboidal (kūboid'äl) *a.* [Gk. *kyboeides*, cube-like.] *Pert.* the cuboid.

cucullate (kū'külät, kūkül'ät) *a.* [L. *cucullus*, hood.] With hood-like sepals or petals; with prothorax hood-shaped.

cucullus (kūkül'üs) *n.* [L. *cucullus*, hood.] A hood-shaped structure; upper part of harpe, in Lepidoptera.

cuiller (kwē'yā) *n.* [F. *cuiller*, spoon.] Spoon-like terminal portion of male insect clasper.

cuirass (kwíräs') *n.* [F. *cuirasse*, leathern jacket.] Bony plates or scales arranged like a cuirass; a lorica, *q.v.*

culm (külm) *n.* [L. *culmus*, stalk.] The stem of grasses and sedges.

culmen (kül'mén) *n.* [L. *culmen*, summit.] Median longitudinal ridge of a bird's beak; part of superior vomer, continuous laterally with quadrangular lobules of anterior lobe of cerebellum.

cultellus (kütlél'üs) *n.* [L. *cultellus*, little knife.] A sharp knife-like organ, one of mouth-parts of certain blood-sucking flies.

culture (kül'tür) *n.* [L. *cultura*; *colere*, to till.] The cultivation of micro-organisms or tissues in prepared media.

cumulose (kū'mülös) *a.* [L. *cumulus*, heap.] *Appl.* deposits consisting chiefly of plant remains, *e.g.* peat.

cumulus (kū'mülüs) *n.* [L. *cumulus*, heap.] The mass of epithelial cells bulging into cavity of an ovarian follicle and in which ovum is embedded; cumulus oophorus, discus proligerus.

cuneate (kū'nēät) *a.* [L. *cuneatus*, wedge-shaped.] Wedge-shaped; *appl.* leaves with broad abruptly-pointed apex and tapering to the base; *appl.* a fasciculus and tubercle formed by a grey nucleus at posterior end of rhomboid fossa of medulla oblongata.

cuneiform (kūnē'ísförm) *a.* [L. *cuneus*, wedge; *forma*, shape.] Wedge-shaped; *appl.* distal tarsal bones; *appl.* a carpal bone, os triquetrum; *appl.* two small cartilages of larynx.

cuneus (kū'nēüs) *n.* [L. *cuneus*, wedge.] A division of elytron of certain insects; a wedge-shaped area of the occipital lobe between calcarine fissure and medial part of parieto-occipital fissure.

cup (küp) *n.* [A.S. *cuppe*, cup.] Any structure resembling a cup.

cupula (kū'pūlā) *n.* [L. *cupula*, little tub.] The bony apex of cochlea; the part of pleura over the apex of lung; cupule, *q.v.*

cupulate (kū'pūlāt) *a.* [L. *cupula*, little tub.] Cup-shaped; *appl.* certain acidia; having a cup-shaped structure or a cupule.

cupule (kū'pūl) *n.* [L. *cupula*, little tub.] The involucre of female flower of oak, etc.; the gemmae-bearing cup of Marchantia; a small sucker of various animals.

curviserial (kūr'visērīāl) *a.* [L. *curvus*, curve; *series*, row.] *Appl.* phyllotaxis in which divergence is such that orthostichies themselves are slightly twisted spirally.

cushion (koosh'ūn) *n.* [M.E. *cuischen*, cushion.] The central thick region in prothallus of fern; *appl.* habitus of many plants, as in certain alpine species; torus tubarius, prominence behind pharyngeal opening of Eustachian tube; tubercle or elevation of laryngeal surface of epiglottis; embryonic endocardial thickening of wall of atrial canal; pulvillus, *q.v.*

cusp (kūsp) *n.* [L. *cusps*, point.] A prominence, as on teeth; a sharp point.

cuspidate (kūs'pidāt) *a.* [L. *cuspidare*, to make pointed.] Terminating in a point; *appl.* leaves, teeth.

cutaneous (kūtā'nēūs) *a.* [L. *cutis*, skin.] *Pert.* the skin.

cuticle (kū'tīkl) *n.* [L. *cuticula*, thin skin.] An outer skin or pellicle; the epidermis; cuticula.

cuticular (kūtīk'ūlār) *a.* [L. *cuticula*, thin skin.] *Pert.* the cuticle or external integument; *appl.* transpiration through the cuticle.

cuticularisation (kūtīk'ūlārīzā'shūn) *n.* [L. *cuticula*, thin skin.] Cutinisation in external layers of epidermal cells.

cutin (kū'tīn) *n.* [L. *cutis*, skin.] A substance allied to cellulose found in external layers of thickened epidermal cells.

cutinisation (kū'tīnīzā'shūn) *n.* [L. *cutis*, skin.] The deposition of cutin

in cell-wall, thereby forming a cuticle.

cutis (kū'tīs) *n.* [L. *cutis*, skin.] The corium, or deeper layer of the skin; layer investing pileus and stipe.

cutocellulose (kū'tōsēl'ūlōs) *n.* [L. *cutis*, skin; *cellula*, small cell.] Cellulose with cutin, as in plant epidermis.

cutose (kū'tōs) *n.* [L. *cutis*, skin.] Cutin, *q.v.*

Cuvier, ducts of [G.L.C.F.D. *Cuvier*, French comparative anatomist]. Short veins opening into sinus venosus, and formed by union of anterior and posterior cardinal veins.

Cuvierian organs,—glandular tubes extending from cloaca of holothurians.

cyanic (siān'īk) *a.* [Gk. *kyanos*, dark blue.] Blue, bluish; *appl.* flowers, birds' eggs.

cyanin (si'ānīn) *n.* [Gk. *kyanos*, cornflower.] The blue pigment or anthocyanin of the cornflower; $C_{27}H_{30}O_{16}$.

cyanocobalamin,—vitamin B_{12a}.

cyanogenesis (si'ānōjēn'ēsis) *n.* [Gk. *kyanos*, blue; *genesis*, origin.] The elaboration of hydrocyanic acid, prussic acid, as in certain plants.

cyanophil (siān'ōfil) *a.* [Gk. *kyanos*, blue; *philein*, to love.] With special affinity for blue or green stains; *appl.* cell structure.

cyanophycin (si'ānōfī'sīn) *n.* [Gk. *kyanos*, blue; *phykos*, seaweed.] Protein reserve forming granules in peripheral region of cells in blue-green algae; β granules.

cyanophyll (siān'ōfil) *n.* [Gk. *kyanos*, blue; *phyllon*, leaf.] A bluish-green colouring matter in plants.

cyathium (si'āthiūm) *n.* [Gk. *kyathos*, cup.] The peculiar inflorescence in Euphorbia, a cup-shaped involucre with stamens and stalked gynoeceum, each stamen and the gynoeceum being a separate flower.

cyathozoid (si'āthōzō'oid) *n.* [Gk. *kyathos*, cup; *zoon*, animal; *eidos*, shape.] The primary zooid in certain tunicates.

cyathus (sī'áthūs) *n.* [L. *cyathus*, cup.] A small cup-shaped organ; the gemma-cup of Marchantia.

cybernetics (sībērnēt'iks) *n.* [Gk. *kybernētikos*, skilled in governing.] Science of communication and control, as by nervous system and brain.

cycle (sīkl) *n.* [Gk. *kyklos*, circle.] The circulation of a fluid through a definite series of vessels; recurrent series of phenomena, as life-cycle, ovarian cycle, etc.

cyclic (sī'klik) *a.* [Gk. *kyklos*, circle.] Having parts of flower arranged in whorls; cyclical; periodic.

cyclocoelic (sī'klosē'lik) *a.* [Gk. *kyklos*, circle; *kōilia*, intestines.] With the intestine coiled in one or more distinct spirals.

cyclogenous (sīklōj'ēnūs) *a.* [Gk. *kyklos*, circle; *gennaiein*, to produce.] Exogenous; *appl.* a stem growing in concentric circles.

cyclogeny (sīklōj'ēni) *n.* [Gk. *kyklos*, circle; *genos*, generation.] Production of a succession of different morphological types in a life-cycle.

cycloid (sī'kloid) *a.* [Gk. *kyklos*, circle; *eidos*, shape.] *Appl.* scales with evenly curved free border.

cyclomorial (sī'klōmōr'īāl) *a.* [Gk. *kyklos*, circle; *morion*, constituent part.] *Appl.* scales, growing in area by apposition of marginal zones, as in Palaeozoic elasmobranchs.

cyclomorphosis (sī'klōmōr'fōsis) *n.* [Gk. *kyklos*, circle; *morphosis*, form.] A cycle of changes in form, as seasonal changes in daphnids.

cyclopean (sīklōpē'ān), **cyclopic** (sīklōp'ik) *a.* [Gk. *kyklos*, circle; *ops*, eye.] *Appl.* single median eye developed under certain artificial conditions instead of the normal pair.

cyclosis (sīklō'sis) *n.* [Gk. *kyklosis*, whirling round.] Circulation, as of protoplasm within a cell.

cyclospermous (sī'klōspēr'mūs) *a.* [Gk. *kyklos*, circle; *sperma*, seed.] With embryo coiled in a circle or spiral.

cyclospondylic (sī'klōspōndil'ik) *a.*

[Gk. *kyklos*, circle; *sphondylos*, vertebra.] *Appl.* centra in which the internal calcareous matter is confined to the middle zone.

cyclospondylous (sī'klōspōn'dilūs) *a.* [Gk. *kyklos*, circle; *sphondylos*, vertebra.] *Appl.* vertebra formed of successive concentric layers of cartilage; also cyclospondylic.

cyesis (sīē'sis) *n.* [Gk. *kyesis*, conception.] Pregnancy.

cylindrical (sīlīn'drikāl) *a.* [Gk. *kylindros*, cylinder.] *Appl.* leaves rolled on themselves, or to solid cylinder-like leaves; *appl.* a type of silk gland in spiders; tubuliform.

cymba (sīm'bā) *n.* [L. *cymba*, boat.] Upper part of concha of ear; a boat-shaped sponge spicule.

cymbiform (sīm'bifōrm) *a.* [L. *cymba*, boat; *forma*, shape.] Boat-shaped; navicular, scaphoid.

cymbium (sīmbi'ūm) *n.* [Gk. *kymbion*, small boat.] Boat-shaped tarsus of pedipalpus in certain spiders.

cyme (sīm) *n.* [L. *cyma*, young sprout.] Any determinate inflorescence.

cymose (sī'mōs) *a.* [L. *cyma*, young sprout.] Sympodially branched, *appl.* inflorescence.

cymotrichous (kīmōt'rikūs, sī-) *a.* [Gk. *kyma*, wave; *thrix*, hair.] Having wavy hair.

cynarrhodium (sīnārō'diūm), **cynarrhodon** (sīnārōd'ōn) *n.* [Gk. *kyon*, dog; *rhodon*, rose.] An etaerio with achenes placed on concave thalamus.

cynopodous (sīnōp'ōdūs) *a.* [Gk. *kyon*, dog; *pous*, foot.] With non-retractile claws.

cyphella (sīfēl'ā) *n.* [Gk. *kyphella*, hollow of ear.] Small cavity on thallus of certain lichens.

cyphonauts (sī'fōnōt'ēz) *n.* [Gk. *kyphos*, bent; *nautes*, sailor.] Young free-swimming larva of certain Polyzoa.

cypsela (sīpsēl'ā) *n.* [Gk. *kyipsele*, hollow vessel.] An inferior bicarpellary achene, as in Compositae.

cyst (síst) *n.* [Gk. *kystis*, bladder.]

The enclosing membrane round a resting cell or apocyte; a bladder or air vesicle in certain seaweeds; abnormal sac containing fluid.

cysteine (sís'těin) *n.* [Gk. *kystis*, bladder.] A reduction product of cystine, occurring in urinary bladder concretions; $C_3H_7O_2NS$.

cystenchyma (sístěng'kímă) *n.* [Gk. *kystis*, bladder; *engchyma*, infusion.] A parenchyma in sponges with large vesicular cell-structure.

cystencytes (sís'těnsits) *n. plu.* [Gk. *kystis*, bladder; *en*, in; *kytos*, hollow.] In sponges, collencies which have acquired a vesicular structure.

cystic (sís'tik) *a.* [Gk. *kystis*, bladder.] *Pert.* a cyst; *pert.* gall-bladder or to urinary bladder.

cysticeroid (sís'tisěr'koid) *a.* [Gk. *kystis*, bladder; *kerkos*, tail; *eidos*, form.] *Appl.* the bladderworm stage of tapeworms.

cysticercus (sís'tisěr'kūs) *n.* [Gk. *kystis*, bladder; *kerkos*, tail.] The larval form or bladderworm stage of certain tapeworms.

cysticolous (sístik'ölüs) *a.* [Gk. *kystis*, bladder; *L. colere*, to inhabit.] Living in a cyst.

cystid (sís'tid) *n.* [Gk. *kystis*, bladder; *idion*, *dim.*] A fossil Cystoid; a cystidium, *q.v.*

cystidiform (sístid'ifōrm) *a.* [Gk. *kystis*, bladder; *idion*, *dim.*; *L. forma*, form.] *Appl.* clavate cells on gill margins in agarics.

cystidium (sístid'iŭm) *n.* [Gk. *kystis*, bladder; *idion*, *dim.*] A hair-like inflated cell in the hymenial layer of some fungi.

cystine (sís'tēn) *n.* [Gk. *kystis*, bladder.] Amino acid found in plants, egg albumin and keratin; dicysteine, $C_6H_{12}O_4N_2S_2$.

cystoarian (sístōā'riān) *a.* [Gk. *kystis*, bladder; *oarion*, small egg.] *Appl.* gonads when enclosed in coelomic sacs, as in most teleosts. *Opp.* gymnoarian.

cystocarp (sís'tōkărp) *n.* [Gk. *kystis*, bladder; *karpōs*, fruit.] A cyst

arising from carpogonial branch and containing spores, in certain Rhodophyceae; cryptocarp.

cystocyte (sís'tōsīt) *n.* [Gk. *kystis*, bladder; *kytos*, hollow.] Cystenocyte, *q.v.*; a granular blood-cell in insects; coagulocyte.

cystogenous (sístōj'ēnūs) *a.* [Gk. *kystis*, bladder; *-genes*, producing.] Cyst-forming; *appl.* large nucleated cells which secrete the cyst, in cercaria.

cystolith (sís'tōlith) *n.* [Gk. *kystis*, bladder; *lithos*, stone.] A mass of calcium carbonate, occasionally of silica, formed on ingrowths of epidermal cell walls in some plants; a vesical calculus.

cyston (sís'tōn) *n.* [Gk. *kystis*, bladder.] A dactylozoid modified for excretory purposes, in Siphonophora.

cystospore (sís'tōspōr) *n.* [Gk. *kystis*, bladder; *spōros*, seed.] A carpospore; a cyst containing a zoospore.

cystozoid (sís'tōzō'id) *n.* [Gk. *kystis*, bladder; *zoon*, animal; *eidos*, form.] The body portion of a metacestode, *opp.* acanthozoid.

cytase (sītās) *n.* [Gk. *kytos*, hollow.] A cellulose digesting or hydrolysing enzyme; protopectinase.

cytaster (sitās'tēr) *n.* [Gk. *kytos*, hollow; *aster*, star.] A star-shaped achromatic figure consisting of attraction-sphere and aster rays; aster, *opp.* karyaster.

cytes (sīts) *n. plu.* [Gk. *kytos*, hollow.] Spermatocyte and oocyte stages of germ-cell formation; auxocytes.

cytobiotaxis,—cytocleisis, *q.v.*; cytotaxis, *q.v.*

cytoblast (sītōblăst) *n.* [Gk. *kytos*, hollow; *blastos*, bud.] The cell nucleus; a hypothetical unit, *q.v.*

cytoblastema (sītōblăs'tēmă) *n.* [Gk. *kytos*, hollow; *blastema*, growth.] The formative material from which cells were supposed to arise.

cytocentrum (sītōsēn'trŭm) *n.* [Gk. *kytos*, hollow; *kentron*, centre.] Centrosome; idiozome.

cytochoic (sī'tōkrō'ik) *a.* [Gk. *kytos*, hollow; *chros*, complexion.] With pigmented cytoplasm.

cytochrome (sī'tōkrōm) *n.* [Gk. *kytos*, hollow; *chroma*, colour.] A chromoprotein essential for oxidation-reduction processes in plant and animal cells; histohaematin; myohaematin.

cytochylema (sī'tōkilē'mā) *n.* [Gk. *kytos*, hollow; *chylos*, juice.] Cyto-lymph, *q.v.*

cytoclesis (sī'tōklē'sis) *n.* [Gk. *kytos*, hollow; *klesis*, summons.] The influence of a cell group or placode upon development or differentiation of neighbouring cells; *cf.* organiser.

cytococcus (sī'tōkōk'ūs) *n.* [Gk. *kytos*, hollow; *kōkkos*, kernel.] The nucleus of a fertilised egg.

cytocyst (sī'tōsist) *n.* [Gk. *kytos*, hollow; *kystis*, bladder.] The envelope formed by remains of host-cell within which a protozoan parasite multiplies.

cytode (sī'tōd) *n.* [Gk. *kytos*, hollow; *eidōs*, form.] A non-nucleated protoplasmic mass.

cytoderm (sī'tōdērm) *n.* [Gk. *kytos*, hollow; *derma*, skin.] A cell-wall.

cytodiaeresis (sī'tōdiērēsīs) *n.* [Gk. *kytos*, hollow; *diaeresis*, division.] Mitosis; karyokinesis.

cytogamy (sītōg'āmi) *n.* [Gk. *kytos*, hollow; *gamos*, marriage.] Cell-conjugation.

cytogene,—plasmagene, *q.v.*

cytogenesis (sī'tōjēn'ēsis) *n.* [Gk. *kytos*, hollow; *genesis*, descent.] Development or formation of cells.

cytogenetic (sī'tōjēnēt'ik) *a.* [Gk. *kytos*, hollow; *genesis*, descent.] *Pert.* cytogenesis; *pert.* cytogenetics; *appl.* map showing location of genes within a chromosome.

cytogenetics (sī'tōjēnēt'iks) *n.* [Gk. *kytos*, hollow; *genesis*, descent.] Genetics in relation to cytology; the cytological aspect of genetics.

cytogenous (sītōj'ēnūs) *a.* [Gk. *kytos*, hollow; *genos*, offspring.] Producing cells; *appl.* lymphatic tissue.

cytoglobin (sī'tōglō'bin) *n.* [Gk. *kytos*, hollow; L. *globus*, globe.] A protein which retards coagulation of blood.

cytohyaloplasma (sī'tōhī'ālōplāz'mā) *n.* [Gk. *kytos*, hollow; *hyalos*, glass; *plasma*, mould.] The substance of the cytomitome; hyaloplasm.

cytokinesis (sī'tōkīnē'sis) *n.* [Gk. *kytos*, hollow; *kinesis*, movement.] Changes attending general cytoplasm during karyokinesis; the separation of daughter-cells following division of parent cell.

cytology (sītōl'ōji) *n.* [Gk. *kytos*, hollow vessel; *logos*, discourse.] The science dealing with structure, functions, and life-history of cells.

cytolymph (sī'tōlimf) *n.* [Gk. *kytos*, hollow; L. *lymphā*, water.] Cell-sap; the fluid part of cytoplasm.

cytolysin (sī'tōlī'sin) *n.* [Gk. *kytos*, hollow; *lysis*, loosing.] A substance inducing cytolysis.

cytolysis (sītōl'isis) *n.* [Gk. *kytos*, hollow; *lysis*, loosing.] Cell-dissolution; cell-degeneration.

cytome (sī'tōm) *n.* [Gk. *kytos*, hollow.] The microsome or cytosome system of a cell.

cytomeres (sī'tōmērz) *n. plu.* [Gk. *kytos*, hollow; *meros*, part.] Cells in Caryotropha formed by division of schizont and giving rise to merozoites; agametoblasts; non-nuclear portions of sperms.

cytometry (sītōm'etri) *n.* [Gk. *kytos*, hollow; *metreo*, to compute.] Count of cells; blood count.

cytomicrosome (sī'tōmī'krōsōm) *n.* [Gk. *kytos*, hollow; *mikros*, small; *soma*, body.] A microsome of cytoplasm, *opp.* karyomicrosome.

cytomitome (sī'tōmitōm) *n.* [Gk. *kytos*, hollow; *mitos*, thread.] The cytoplasmic thread-work.

cytomorphosis (sī'tōmōr'fōsis) *n.* [Gk. *kytos*, hollow; *morphosis*, shaping.] The life-history of cells; the series of structural modifications of cells or successive generations of cells; cellular change, as in senescence.

cyton (sí'tôn) *n.* [Gk. *kytos*, hollow.] The body of a nerve cell; neurocyton.

cytophan (sí'tōfān) *n.* [Gk. *kytos*, hollow; *phaneros*, visible.] Ovoid matrix surrounding karyophans in spiroplasma and axoneme fibres in infusorian stalk.

cytopharynx (sí'tōfār'ingks) *n.* [Gk. *kytos*, hollow; *pharynx*, gullet.] A tube-like structure leading from mouth into endoplasm in certain protozoa.

cytophil (sí'tōfil) *a.* [Gk. *kytos*, hollow; *philein*, to love.] *Pert.* haptophorous groups; having an affinity for cells.

cytophore (sí'tōfōr) *n.* [Gk. *kytos*, hollow; *phora*, burden.] A cell regarded as bearer of parasitic Sporozoa; central non-nucleated protoplasm in sperm morula; blastophore.

cytoplasm (sí'tōplāzm) *n.* [Gk. *kytos*, hollow; *plasma*, mould.] Substance of cell-body exclusive of nucleus; *cf.* karyoplasm.

cytoproct (sí'tōprōkt), **cytopyge** (sí'tōpij') *n.* [Gk. *kytos*, hollow; *proktos*, anus; *pyge*, rump.] A cell-anus.

cytoreticulum (sí'tōrētik'ūlūm) *n.* [Gk. *kytos*, hollow; L. *reticulum*, little net.] The cytoplasmic thread-work; cytomitome; spongioplasm.

cytosine (sí'tōsln) *n.* [Gk. *kytos*, hollow.] A cleavage product of nucleic acid; $C_4H_5N_3O$.

cytosome (sí'tōsōm) *n.* [Gk. *kytos*, hollow; *soma*, body.] The cytoplasmic part of a cell; a microsome, *q.v.*

cytostome (sí'tōstōm) *n.* [Gk. *kytos*, hollow; *stoma*, mouth.] A cell-mouth.

cytotaxis (sí'tōtāk'sis) *n.* [Gk. *kytos*, hollow; *taxis*, arrangement.] Re-arrangement of cells on stimulation.

cytothesis (sí'tōth'ēsīs) *n.* [Gk. *kytos*, hollow; *thesis*, arranging.] Regenerative tendency of a cell.

cytotoxin (sí'tōtōk'sin) *n.* [Gk. *kytos*, hollow; *toxikon*, poison.] A cell-poisoning substance formed in blood serum; cytolyisin; enzymoid.

cytotrophoblast (sí'tōtrōf'ōblāst) *n.* [Gk. *kytos*, hollow; *trophē*, nourishment; *blastos*, bud.] Inner layer of trophoblast, layer of Langhans.

cytotropism (sí'tōt'rōpizm) *n.* [Gk. *kytos*, hollow; *tropē*, turning.] The mutual attraction of two or more cells.

cytozoic (sí'tōzō'ik) *a.* [Gk. *kytos*, hollow; *zoon*, animal.] Living within a cell; *appl.* sporozoan trophozoite.

cytozyme (sí'tōzīm) *a.* [Gk. *kytos*, hollow; *zyme*, leaven.] Thrombokinase, *q.v.*

cytula (sí'tūlā) *n.* [Gk. *kytos*, hollow.] The fertilised ovum or parent cell.

D

dacryocyst (dāk'rīōsist) *n.* [Gk. *dakryon*, tear; *kystis*, bladder.] Lacrimal sac; saccus lacrimalis.

dacryoid (dāk'rīoid) *a.* [Gk. *dakryon*, tear; *eidos*, shape.] Tear-shaped; lacrimiform; *appl.* spores.

dacryon (dāk'rīōn) *n.* [Gk. *dakryon*, tear.] Point of junction of anterior border of lacrimal with frontal bone and frontal process of maxilla.

dactyl (dāk'til) *n.* [Gk. *daktylos*, finger.] A digit; finger, or toe; terminal ventral projection of praetarsus in scorpions; dactylus.

dactylar (dāk'tilār) *a.* [Gk. *daktylos*, finger.] *Pert.* finger or digit.

dactyline,—dactylloid.

dactylognathite (dāk'tilōg'nāthit) *n.* [Gk. *daktylos*, finger; *gnathos*, jaw.] Terminal segment of a maxilliped.

dactylloid (dāk'tiloid) *a.* [Gk. *daktylos*, finger; *eidos*, form.] Like a finger or fingers.

dactylopatagium (dāk'tilōpātā'jiūm) *n.* [Gk. *daktylos*, finger; L. *patagium*, border.] Ectopatagium, *q.v.*

dactylopodite (dāk'tilōp'ōdit) *n.* [Gk. *daktylos*, finger; *pous*, foot.] Distal joint in certain limbs of Crustacea; metatarsus and tarsus, of spiders.

dactylopore (dāk'tilōpōr') *n.* [Gk. *daktylos*, finger; *poros*, channel.] Opening in skeleton of Milleporina, for protrusion of a dactylozoid.

dactylopterus (dāk'tilōp'tērūs) *a.* [Gk. *daktylos*, finger; *pteron*, wing.] With anterior rays of pectoral fins more or less free.

dactylozoid (dāk'tilōzō'id) *n.* [Gk. *daktylos*, finger; *zoon*, animal; *eidos*, form.] A hydroid modified for catching prey, long, with tentacles or short knobs, with or without a mouth.

dactylus (dāk'tilūs) *n.* [Gk. *daktylos*, finger.] Part of tarsus of an insect; dactyl of scorpions.

dart (dārt) *n.* [O.F. *dart*, dagger.] Any structure resembling a dart; *appl.* a crystalline structure in molluscs.

dart sac,—a small sac, containing a limy dart, attached to vagina near its orifice in some gastropods.

dartoid (dār'toid) *a.* [Gk. *dartos*, flayed.] *Pert.* the dartos.

dartos (dār'tōs) *n.* [Gk. *dartos*, flayed.] Tunica dartos, a thin layer of non-striped muscle united to skin of scrotum or of labia majora.

Darwinian tubercle,—the slight prominence on helix, of external ear, near the point where it bends downwards.

Darwinism (dār'wīnizm) *n.* [C. *Darwin*]. The theory of origin of species by natural selection working on slight variations that occur, thereby selecting those best adapted to survive.

dasympaedes (dās'ipē'dēz) *n. plu.* [Gk. *dasys*, hairy; *pais*, child.] Birds whose young are downy at hatching.

dasyphyllous (dās'ifil'ūs) *a.* [Gk. *dasys*, hairy; *phyllon*, leaf.] With thickly haired leaves.

dauermodification (dow'ermōdifīkā'shūn) *n.* [Ger. *Dauer*, duration; L. *modificatio*, modification.] A change induced by environmental factors and persisting for several generations but not permanently, the organism eventually reverting to type.

daughter (dō'tēr) *n.* [A.S. *dohtor*, daughter.] Offspring of first generation with no reference to sex, as daughter-cell, daughter-nucleus, etc.; daughter-chromosome: a chromatid during anaphase.

day-neutral,—*appl.* plants in which flowering can be induced by either a long or a short photoperiod. *Cf.* long-day, short-day.

dealation (dēālā'shūn) *n.* [L. *de*, away; *alatus*, winged.] The removal of wings, as by female ants after fertilisation, or by termites.

deamination (dēām'īnāshūn) *n.* [L. *de*, down; Gk. *ammoniakon*, resinous gum.] Removal of the amino (NH₂) radical from an amino acid; the conversion of ammonium salts into urea, partly accomplished in the liver.

death (dēth) *n.* [A.S. *deāth*, death.] Complete and permanent cessation of vital functions in an organism.

death-point,—temperature above or below which organisms cannot exist.

Débove's membrane [*M. G. Débove*, French histologist]. Layer between tunica propria and epithelium of tracheal, bronchial, and intestinal mucous membranes; subepithelial endothelium.

decalcify (dēkāl'sifi) *v.* [L. *de*, away; *calx*, lime; *facere*, to make.] To deprive of lime salts; to treat with acids for removal of calcareous part.

decamerous (dēkām'ērūs) *a.* [Gk. *deka*, ten; *meros*, part.] With the various parts arranged in tens.

decandrous (dēkăn'drūs) *a.* [Gk. *deka*, ten; *aner*, male.] Having ten stamens.

decaploid (dēk'āploid) *a.* [Gk. *deka*, ten; *aploos*, onefold; *eidos*, form.] Having ten times the haploid number of chromosomes.

decapod (dēk'āpōd) *a.* [Gk. *deka*, ten; *pous*, foot.] Of Crustacea, with five pairs of legs on thorax; of Cephalopoda, with ten arms.

decapodiform (dĕk'ăpŏd'ifŏrm) *a.* [Gk. *deka*, ten; *pous*, foot; L. *forma*, shape.] Resembling a decapod, *appl.* certain insect larvae.

decemfid (dĕsĕm'fid) *a.* [L. *decem*, ten; *findere*, to cleave.] Cut into ten segments.

decemfoliate (dĕsĕm'fŏliăt) *a.* [L. *decem*, ten; *folium*, leaf.] Ten-leaved.

decemjugate (dĕsĕm'joogăt) *a.* [L. *decem*, ten; *jugare*, to join.] With ten pairs of leaflets.

decempartite (dĕsĕmpăr'tit) *a.* [L. *decem*, ten; *partiri*, to divide.] Ten-lobed; divided into ten lobes.

decidua (dĕsid'üă) *n.* [L. *decidere*, to fall off.] The mucous membrane lining the pregnant uterus, cast off after parturition.

decidua capsularis,—portion of the decidua over the ovum.

decidua parietalis,—the decidua vera lining the body of the uterus.

decidua placentalis,—portion of the decidua between myometrium and ovum; decidua basalis.

decidual (dĕsid'üăl) *a.* [L. *decidere*, to fall off.] *Pert.* decidua.

deciduate (dĕsid'üăt) *a.* [L. *decidere*, to fall off.] Characterised by having a decidua; partly formed by the decidua.

deciduous (dĕsid'üūs) *a.* [L. *decidere*, to fall down.] Falling at end of growth period or at maturity.

declinate (dĕk'linăt) *a.* [L. *de*, away; *clinare*, to bend.] Bending aside in a curve, as anther filament in horse-chestnut.

declivis (dĕkl'ivis) *n.* [L. *declivis*, sloping.] Part of superior vermis, continuous laterally with lobulus simplex of cerebellar hemispheres.

decollated (dĕkŏl'ătĕd) *a.* [L. *de*, away from; *collum*, neck.] With apex of spire wanting.

decomposed (dĕ'kŏmpŏzd') *a.* [L. *de*, away; *cum*, with; *pausare*, to rest.] Not in contact; not adhering, said of barbs of feather when separate; decayed.

decomposite,—decompound.

decompound (dĕ'kŏmpŏund') *a.* [L. *de*, away; *cum*, with; *ponere*, to place.] With monopodial branching very complete, and ultimate wings little developed; *appl.* leaf.

deconjugation (dĕ'kŏnjoogă'shŭn) *n.* [L. *de*, away from; *conjugare*, to join together.] Separation of paired chromosomes, as before end of meiotic prophase.

decorticate (dĕkŏr'tikăt) *v.* [L. *decorticare*, to peel.] To remove bark or cortex. *a.* With cortex ablated.

dectitious (dĕk'tikŭs) *n.* [Gk. *dek-tikos*, biting.] Having functional mandibles for opening puparium or cocoon; *appl.* pupa of some insects. *Opp.* adectitious.

decumbent (dĕkŭm'bĕnt) *a.* [L. *decumbere*, to lie down.] *Appl.* stems which trail on ground, but rise at apex.

decurrent (dĕkŭr'ĕnt) *a.* [L. *decurrere*, to run downwards.] Having leaf base prolonged down stem as a winged expansion or rib; prolonged down stipe, as gills of agaric.

decussate (dĕkŭs'ăt) *a.* [L. *decussare*, to cross.] Crossed; having paired leaves, succeeding pairs crossing at right angles.

decussation (dĕk'ŭsă'shŭn) *n.* [L. *decussare*, to cross.] Decussate condition of leaves; crossing of nerves with interchange of fibres, as in optic and pyramidal tracts.

dedifferentiation (dĕdif'ĕrĕnshlă'shŭn) *n.* [L. *de*, away from; *differentia*, difference.] The losing of characteristics of specialised cells and regression to a more simple state.

dédoublement (dă'dooblĕmŏng') *n.* [F. *dédoublement*, dividing into two.] Choris; deduplication.

deduplication (dĕdŭ'plikă'shŭn) *n.* [L. *de*, by reason of; *duplicare*, to double.] Choris, *q.v.*

defaecation (dĕ'fĕkă'shŭn) *n.* [L. *defaecatio*, voiding of excrement.] The expulsion of faeces; defecation.

defensive (dĕfĕn'siv) *a.* [L. *defendere*, to defend.] Protective; *appl.* proteid substances which destroy toxic substances of bacteria; *appl.* numerous organs or parts of organs in various animals or plants.

deferent (dĕf'ĕrĕnt) *a.* [L. *deferre*, to carry away.] Conveying away; *appl.* ducts, vasa deferentia, *g.v.*

deferred (dĕfĕrd') *a.* [L. *deferre*, to carry off.] *Appl.* shoots arising from dormant buds.

deficiency,—inactivation or absence of a chromosomal segment or gene.

deficiency diseases, — pathological conditions in plants and animals, due to lack of certain necessary nutritive substances; *e.g.* crown rot in sugar beet due to boron deficiency; diseases in mammals due to vitamin deficiency, absence of vitamin A causing poor growth and xerophthalmia,—of B₁, beriberi,—of B₂, retardation of growth,—of C, scurvy,—of D, rickets,—of E, infertility and paralysis,—of K, bleeding,—etc.

definite (dĕf'init) *a.* [L. *definire*, to limit.] Fixed, constant; cymose, *appl.* inflorescences with primary axis terminating early in a flower; *appl.* stamens limited to twenty in number.

definitive (dĕf'initiv) *a.* [L. *definire*, to limit.] Defining or limiting; complete, fully developed; final, *appl.* host of adult parasite.

deflorate (dĕflō'rāt) *a.* [L. *deflorere*, to shed blossoms.] After the flowering stage.

defoliate (dĕfō'liāt) *a.* [L. *defoliare*, to strip of leaves.] Bared at the annual fall. *v.* To deprive of leaves.

degeneration (dĕjĕnĕrā'shūn) *n.* [L. *degenerare*, to degenerate.] Change to a less specialised or functionally less active form; retrogressive evolution.

deglutition (dĕglōot'ish'ūn) *n.* [L. *de*, down; *glutire*, to swallow.] The process of swallowing.

ehiscence (dĕhls'ĕns) *n.* [L. *de-*

hiscere, to gape.] The spontaneous opening of an organ or structure along certain lines or in a definite direction.

deinopore (dī'nōpōr) *n.* [Gk. *deinos*, urn; *poros*, channel.] A cell bridge.

deirids (dī'rīdz) *n. plu.* [Gk. *deiras*, chain of hills.] Cervical papillae in Nematoda.

Deiters' cells [O. F. C. *Deiters*, German anatomist]. Supporting cells between rows of outer hair-cells in organ of Corti; outer phalangeal cells.

delamination (dĕlām'inā'shūn) *n.* [L. *de*, down; *lamina*, layer.] The dividing off of cells to form new layers.

deletion (dĕlē'shūn) *n.* [L. *delere*, to efface.] A deficiency of an acentric part of chromosome; absence of a chromosome segment and of the genes involved.

deliquescent (dĕl'ikwĕs'ĕnt) *a.* [L. *deliquescere*, to become fluid.] Having lateral buds the more vigorously developed, so that the main stem seems to divide into a number of irregular branches; becoming fluid.

delitescence (dĕlitĕs'ĕns) *n.* [L. *delitescere*, to lie hidden.] The latent period of a poison; incubation period of a pathogenic organism.

delomorphie (dĕ'lōmōr'fik) *a.* [Gk. *delos*, visible; *morphe*, shape.] With definite form, *appl.* oxyntic cells of the gastric glands; delomorphous.

delthyrium (dĕlthī'rīūm) *n.* [Gk. *delos*, visible; *thyron*, little door.] The opening, between hinge and beak, for peduncle exit in many Brachiopoda.

deltidium (dĕl'tīd'ium) *n.* [Gk. *Δ*, delta; *idion*, dim.] A plate covering the delthyrium.

deltoid (dĕl'toid) *a.* [Gk. *Δ*, delta; *eidōs*, form.] More or less triangular in shape, *appl.* muscle, etc.; *appl.* oral plates on calyx of Blastoidea.

demanian (dēmān'īān) *a.* [*J. G. de Man*, French zoologist]. *Appl.* a complex system of paired efferent tubes connecting with intestine and uteri in Nematoda, and associated with gelatinous secretion for protection of eggs.

deme (dēm) *n.* [*Gk. demos*, people.] Assemblage of taxonomically closely related individuals; aggregate of single cells.

demersal (dēmēr'sāl) *a.* [*L. demergere*, to plunge into.] Living on or near bottom of sea or lake; sunk.

demersed (dēmērs'd) *a.* [*L. demergere*, to plunge into.] Growing under water; *appl.* parts of plants.

demibranch,—hemibranch, *q.v.*

demifacet (dēmifās'ēt) *n.* [*L. dimidius*, half; *facies*, face.] Part of parapophysis facet when divided between centra of two adjacent vertebrae.

demilunes,—crescentic cells; crescentic bodies of cells of some salivary gland alveoli, crescents of Gianuzzi or demilunes of Heidenhain.

demiplate (dēm'iplāt) *n.* [*L. dimidius*, half; *F. plate*, flat.] Plate cut off by fusion of adjoining plates behind it from central suture line of ambulacral area in echinoderms.

demisheath (dēm'ishēth) *n.* [*L. dimidius*, half; *A.S. sceath*, sheath.] One of paired protecting covers of insect ovipositor.

demoid (dē'moid) *a.* [*Gk. demos*, the commons.] Abundant.

denatant (dēnā'tānt) *a.* [*L. de*, down from; *natare*, to swim.] Swimming, drifting, or migrating with the current, *opp.* contranatant.

dendriform (dēn'drīfōrm) *a.* [*Gk. dendron*, tree; *L. forma*, shape.] Dendroid; tree-like.

dendrite (dēn'drīt) *n.* [*Gk. dendron*, tree.] A fine branch of a dendron; a dendron.

dendritic (dēndrīt'ik) *a.* [*Gk. dendron*, tree.] Dendroid; *appl.* tree-like structures or markings; like, *pert.*, or having, dendrites or dendrons.

dendrochronology (dēn'drōkrōnōl'

ōji) *n.* [*Gk. dendron*, tree; *chronos*, time; *logos*, discourse.] Determination of age of trees or timber; dating by comparative study of tree rings; science of tree-ring analysis and its implications.

Dendrogaia (dēn'drōjē'ā) *n.* [*Gk. dendron*, tree; *gaia*, earth.] A biogeographical region including all the neotropical region except temperate South America.

dendroid (dēn'droid) *a.* [*Gk. dendron*, tree; *eidos*, form.] Tree-like; much branched.

dendrology (dēndrōl'ōji) *n.* [*Gk. dendron*, tree; *logos*, discourse.] The study of trees.

dendron (dēn'drōn) *n.* [*Gk. dendron*, tree.] A protoplasmic process of the nerve cell, which conducts impulses towards the cell-body.

denitrification (dē'nitrifikā'shūn) *n.* [*L. de*, away; *Gk. nitron*, soda; *L. facere*, to make.] Reduction of nitrates, to nitrites and ammonia, as in plant tissues, or to molecular nitrogen, as by certain soil bacteria.

dens (dēnz) *n.* [*L. dens*, tooth.] Tooth, or tooth-like process; odontoid process of axis or epistropheus.

dens serotinus,—the third molar or wisdom-tooth.

dental (dēn'tāl) *a.* [*L. dens*, tooth.] *Pert.* teeth; *appl.* nerves, blood-vessels, canals, furrows, papillae, sac, tissue, etc.

dentary (dēn'tārī) *a.* [*L. dens*, tooth.] *Pert.* dentaries, membrane bones in lower jaw of many vertebrates. *n.* Dentary bone or os dentale.

dentate (dēn'tāt) *a.* [*L. dens*, tooth.] Toothed; with sharp saw-like teeth on the margin.

dentate-ciliate,—with teeth and hairs on the margins; *appl.* leaves.

dentate-crenate,—with marginal teeth somewhat rounded.

denticles (dēn'tiklz) *n. plu.* [*L. denticulus*, little tooth.] Small tooth-like processes; the paragnaths of certain Polychaeta; the teeth within the secondary orifice in Polyzoa; the scales of certain Elasmobranchii.

denticulate (dēntik'ūlāt) *a.* [L. *denticulus*, little tooth.] Having denticles; with minute marginal teeth.

dentin,—dentine, *q.v.*

dental (dēn'tināl) *a.* [L. *dens*, tooth.] *Pert.* dentine; *appl.* tubules, *i.e.* canaliculi dentales.

dentine (dēn'tin) *n.* [L. *dens*, tooth.] A hard, elastic substance, chemically resembling bone, composing the greater part of teeth and denticles; dentin.

dentition (dēntish'ūn) *n.* [L. *dens*, tooth.] The number, arrangement, and kind of teeth; teething.

deperulation (dē'pērūlā'shūn) *n.* [L. *de*, away; *dim.* of *pēra*, wallet.] The pushing apart or throwing off, of bud scales.

depigmentation (dēpīg'méntā'shūn) *n.* [L. *de*, away; *pīngere*, to paint.] The destruction of colour in a cell, by natural or experimental physiological processes.

depilation (dēp'īlā'shūn) *n.* [L. *de*, away; *pīlus*, hair.] Loss of hairy covering, as of plants when maturing; removal of hair.

deplanate (dēp'lānāt) *a.* [L. *deplanare*, to level.] Levelled, flattened.

depressant (dēprēs'ānt) *n.* [L. *deprimere*, to keep down.] Anything that lowers vital activity.

depressomotor (dēprēs'ōmō'tōr) *n.* [L. *deprimere*, to keep down; *movere*, to move.] Any nerve which lowers muscular activity.

depressor (dēprēs'ōr) *n.* [L. *deprimere*, to keep down.] Any muscle which lowers or depresses any structure; *appl.* a nerve which lowers the activity of an organ.

depula (dēp'ūlā) *n.* [Gk. *depas*, goblet.] Invaginated blastula preceding gastrula stage in development of embryo.

deric (dēr'ik) *a.* [Gk. *deros*, skin.] Dermic; *appl.* epithelium, synonym of epidermis.

derm,—derma, dermis.

derma (dēr'mā) *n.* [Gk. *derma*, skin.] The layers of integument below the epidermis; dermis.

dermal (dēr'māl) *a.* [Gk. *derma*, skin.] *Pert.* derma, or skin.

dermalia (dērmā'liā) *n. plu.* [Gk. *derma*, skin.] Microscleres in the dermal membrane of sponges.

dermarticulate (dēr'mārtik'ūlā'rē) *n.* [Gk. *derma*, skin; L. *articulus*, joint.] The goniale, *q.v.*

dermatic,—dermal.

dermatogen (dēr'mātōjēn) *n.* [Gk. *derma*, skin; *genos*, birth.] The young or embryonic epidermis in plants; antigen of skin disease.

dermatoglyphics (dēr'mātōglif'iks) *n.* [Gk. *derma*, skin; *glyphein*, to carve.] Skin, palm, finger, sole, toe prints; print formulae.

dermatoid (dēr'mātoid) *a.* [Gk. *derma*, skin; *eidōs*, form.] Resembling a skin; functioning as a skin.

dermatomes (dēr'mātōmz) *n. plu.* [Gk. *derma*, skin; *tome*, cutting.] Lateral parts of segmental mesoderm, which develop into connective tissue of corium or dermis; dermatomeres; skin areas supplied by individual spinal nerves.

dermatophyte (dēr'mātōfit) *n.* [Gk. *derma*, skin; *phyton*, plant.] Any fungous parasite of skin; dermatophyton, dermatophyte, epidermophyte.

dermatoplasm (dēr'mātōplāzm) *n.* [Gk. *derma*, skin; *plasma*, mould.] Cell-wall protoplasm.

dermatoplast (dēr'mātōplāst') *n.* [Gk. *derma*, skin; *plastos*, moulded.] A protoplast with a cell wall.

dermatopsy (dēr'mātōp'si') *n.* [Gk. *derma*, skin; *opsis*, sight.] Condition of seeing with the skin, *i.e.* with a skin sensitive to light.

dermatoskeleton,—exoskeleton.

dermatosome (dēr'mātōsōm') *n.* [Gk. *derma*, skin; *soma*, body.] One of vital units forming a cell-membrane.

dermatozoon (dēr'mātōzōōn) *n.* [Gk. *derma*, skin; *zoon*, animal.] Any animal parasite of the skin; ectozoon.

dermentoglossum (dĕrm'ĕntōglōs'-ūm) *n.* [Gk. *derma*, skin; *entos*, within; *glossa*, tongue.] A bone arising by fusion of dentinal bases, covering entoglossum, in some fishes.

dermethmoid (dĕrmĕth'moid) *n.* [Gk. *derma*, skin; *ethmos*, sieve; *eidōs*, form.] Supra-ethmoid, *q.v.*

dermic (dĕr'mik) *a.* [Gk. *derma*, skin.] *Pert.*, or derived from, skin.

dermis (dĕr'mis) *n.* [Gk. *derma*, skin.] *Derma*, *q.v.*; corium.

dermoblast (dĕr'mōblāst') *n.* [Gk. *derma*, skin; *blastos*, bud.] The layer of mesoblast which gives rise to the derma.

dermoccipitals (dĕrm'ōksip'itālz) *n. plu.* [Gk. *derma*, skin; *L. occiput*, back of head.] Two bones taking the place of interparietal in some lower forms and in development of higher.

dermomyotome (dĕr'mōmī'ōtōm) *n.* [Gk. *derma*, skin; *mys*, muscle; *tome*, cutting.] The dorsilateral part of mesodermal somites.

dermo-ossification (dĕr'mōōs'ifikā'-shūn) *n.* [Gk. *derma*, skin; *L. os*, bone; *fieri*, to become.] A bone formed in the skin.

dermopharyngeal (dĕr'mōfārīn'jĕāl) *n.* [Gk. *derma*, skin; *pharyngx*, gullet.] Superior or inferior plate of membrane bone supporting pharyngeal teeth in some fishes.

dermophyte,—*dermatophyte*, *q.v.*

dermosclerites (dĕr'mōsklē'rīts) *n. plu.* [Gk. *derma*, skin; *skleros*, hard.] Masses of spicules found in tissues of Alcyonidae.

dermoskeleton (dĕr'mōskēl'ĕtōn) *n.* [Gk. *derma*, skin; *skeletos*, dried.] *Exoskeleton*, *q.v.*

dermotrichia (dĕr'mōtrik'īā) *n. plu.* [Gk. *derma*, skin; *thrix*, hair.] Dermal fin-rays.

dermozoon,—*dermatozoon*, *q.v.*

derotreme (dĕr'ōtrēm) *n.* [Gk. *deros*, skin; *trema*, aperture.] Skin forming an operculum, as in Megalobatrachus.

dertrotheca (dĕr'trōthĕ'ka) *n.* [Gk.

dertron, beak; *theke*, box.] The horny casing of bird maxilla.

dertrum (dĕr'trūm) *n.* [Gk. *dertron*, beak.] Any modification of the casing of maxilla in birds.

Descemet's membrane [*J. Descemet*, French anatomist]. The posterior elastic lamina of cornea; Demour's membrane.

descending (dĕsĕn'ding) *a.* [*L. de*, down; *scandere*, to climb.] Directed downwards, or towards caudal region; *appl.* blood-vessels, nerves, etc.

desegmentation (dĕsĕg'mĕntā'shūn) *n.* [*L. de*, from; *segmentum*, piece cut off.] Fusion of segments originally separate.

deserticolous (dĕz'ĕrtik'ōlūs) *a.* [*L. desertus*, waste; *colere*, to inhabit.] Desert-inhabiting.

desma (dĕs'mā, dĕz-) *n.* [Gk. *desma*, bond.] Megascclere which forms characteristic skeletal network of Lithistida.

desmactinic (dĕs'māktīn'ik,) *a.* [Gk. *desma*, bond; *aktis*, ray.] With podia continued upwards to apical plate, *appl.* Stellerioidea; *cf.* lysactinic.

desmergate (dĕs'mĕrgāt) *n.* [Gk. *desma*, bond; *ergates*, worker.] A type of ant intermediate between worker and soldier.

desmocyte (dĕs'mōsit) *n.* [Gk. *desmos*, bond; *kytos*, hollow.] A connective tissue cell; fibroblast.

desmogen (dĕs'mōjĕn,) *n.* [Gk. *desmos*, bond; *genos*, descent.] Merismatic or growing tissue.

desmognathous (dĕsmōg'nāthūs) *a.* [Gk. *desmos*, bond; *gnathos*, jaw.] Having maxillopalatines fused in middle line owing to other peculiarities in skull; *appl.* certain birds.

desmology (dĕsmōl'ōjī) *n.* [Gk. *desmos*, bond; *logos*, discourse.] The anatomy of ligaments; *cf.* syndesmology.

desmones (dĕs'mōnz) *n. plu.* [Gk. *desmos*, bond.] Chemical substances exchanged by way of protoplasmic bridges between cells; amboceptors, *q.v.*

desmose (dēs'mōs) *n.* [Gk. *desmos*, bond.] A strand connecting blepharoplasts at mitosis.

desmosome (dēs'mōsōm) *n.* [Gk. *desmos*, bond; *soma*, body.] A thickening of intercellular connections in epithelium; bridge corpuscle.

desquamation (dēs'kwāmā'shūn) *n.* [L. *de*, away; *squama*, scale.] Shedding of cuticle or epidermis in flakes.

desynapsis (dēs'sīnāp'sis) *n.* [L. *de*, away from; Gk. *synapsis*, union.] Failure of synapsis, caused by disjunction of homologous chromosomes.

determinant (dētēr'mīnānt) *n.* [L. *determinare*, to limit.] A hypothetical unit, being an aggregation of biophores determining the development of a cell or of an independently variable group of cells; hereditary factor.

determinate (dētēr'mīnāt) *a.* [L. *determinare*, to limit.] With certain limits; *appl.* inflorescence with primary axis terminated early with a flower-bud; *appl.* cleavage; *appl.* evolution: orthogenesis.

determination (dētēr'mīnā'shūn) *n.* [L. *determinatio*, boundary.] The process adjusting regional development according to relative location of region and organisation centre.

determinator (dētēr'mīnātōr) *n.* [L. *determinare*, to determine.] A gene that controls the male or female character of haploid mycelium at the site of formation of a fruit-body.

detorsion (dētōr'shūn) *n.* [L. *de*, away; *torquere*, to twist.] Torsion in an opposite direction to that of original, resulting in a more or less posterior position of anus and circumanal complex.

detoxication (dē'tōksikā'shūn) *n.* [L. *de*, away; Gk. *toxikon*, poison.] The inhibition of effects of toxins in the body, either by a protective synthesis of comparatively harmless substances, or by means of antibodies.

detrusor (dētrōō'sōr) *n.* [L. *detrudere*, to thrust from.] The outer of three layers of the muscular coat of the urinary bladder; physiologically, all three layers; detrusor urinae, detrusor vesicae.

deuter cell,—eurycyst, *q.v.*

deutero-,—also see deuto-

deuterocephalum (dū'tērōsēr'ēbrūm) *n.* [Gk. *deuteros*, second; L. *cerebrum*, brain.] That portion of crustacean brain from which antennular nerves arise. Cf. deutocerebrum.

deuterocoele (dū'tērōsēl) *n.* [Gk. *deuteros*, second; *koilos*, hollow.] The coelom.

deuterocone (dū'tērōkōn') *n.* [Gk. *deuteros*, second; *konos*, cone.] Mammalian premolar cusp corresponding to molar protocone.

deuteroconidium (dū'tērōkōnid'īūm) *n.* [Gk. *deuteros*, second; *konis*, dust; *idion*, dim.] One of the conidia produced by division of a hemispore or protoconidium, in dermatophytes.

deuterogamy (dū'tērōg'āmī) *n.* Gk. *deuteros*, second; *gamos*, marriage.] Secondary fertilisation; pairing substituting for the union of gametes as in fungi.

deutero genesis (dū'tērōjēn'ēsīs) *n.* [Gk. *deuteros*, second; *genesis*, origin.] Second phase of embryonic development, involving growth in length and consequent bilateral symmetry; cf. protogenesis.

deuteroplasm,—deutoplasm, *q.v.*

deuteropolydesmic (dū'tērōpōlidēs'mik) *a.* [Gk. *deuteros*, second; *desmos*, bond.] *Appl.* cyclomorior scales composed mainly of synpolydesmic scales.

deuteroproteose (dū'tērōprō'tēōs) *n.* [Gk. *deuteros*, second; *protos*, first.] A secondary product from digestion of proteids.

deuterostoma (dū'tērōs'tōmā) *n.* [Gk. *deuteros*, second; *stoma*, mouth.] A mouth formed secondarily, as distinct from gastrula mouth.

- deuterotoky** (dū'tērōt'ōkī) *n.* [Gk. *deuteros*, second; *tokos*, birth.] Reproduction of both sexes from parthenogenetic eggs; *cf.* arrhenotoky and thelytoky.
- deuterotype** (dū'tērōtīp) *n.* [Gk. *deuteros*, second; *typos*, pattern.] The specimen chosen to replace the original type specimen for designation of a species.
- Deuterozoic** (dū'tērōzō'īk) *a.* [Gk. *deuteros*, second; *zoe*, life.] *Appl.* and *pert.* the newer Palaeozoic faunal epoch, the age of fishes, also of pteridosperms.
- deuterozoid** (dū'tērōzō'oid) *n.* [Gk. *deuteros*, second; *zoon*, animal; *eidos*, form.] A zoid produced by budding from a primary zoid.
- deuthyalosome** (dūthī'ālōsōm) *n.* [Gk. *deuteros*, second; *hyalos*, glass; *soma*, body.] The nucleus remaining in ovum after formation of first polar body.
- deuto-**,—also see deuterio-.
- deutoblasts** (dū'tōblāsts) *n. plu.* [Gk. *deuteros*, second; *blastos*, bud.] The amoeba-like bodies formed from protoblasts in zygote of Microclossia, and liberated to multiply in the blood.
- deutobroch** (dū'tōbrōk) *a.* [Gk. *deuteros*, second; *brochos*, mesh.] *Appl.* nuclei of gonidia preparing for leptotene stage; *cf.* protobroch.
- deutocerebrum** (dū'tōsēr'ēbrūm) *n.* [Gk. *deuteros*, second; L. *cerebrum*, brain.] Portion of insect brain derived from fused ganglia of antennary segment of head; deutocerebrum. *Cf.* deutocerebrum.
- deutomalae** (dū'tōmālē) *n. plu.* [Gk. *deuteros*, second; *malon*, cheek.] The broad plate in Chaetognatha, formed by fusion of second pair of mouth appendages; second pair of mouth appendages in certain Myriopoda.
- deutomerite** (dū'tōm'ērīt) *n.* [Gk. *deuteros*, second; *meros*, part.] The posterior division of certain gregarines; *cf.* primate.
- deutonephros** (dū'tōnēf'rōs) *n.* [Gk. *deuteros*, second; *nephros*, kidney.] Mesonephros.
- deutonymph** (dū'tōnimf) *n.* [Gk. *deuteros*, second; *nymphē*, chrysalis.] Second nymphal stage or instar, either chrysalis-like or motile, in development of Acaridae; hypopus stage.
- deutoplasm** (dū'tōplāzm) *n.* [Gk. *deuteros*, second; *plasma*, mould.] Yolk or food material in cytoplasm of ovum or other cell.
- deutosclex** (dū'tōskō'lēks) *n.* [Gk. *deuteros*, second; *skolex*, worm.] A secondary scolex produced by budding, in bladderworm stage of certain tape-worms.
- deutosomes** (dū'tōsōmz) *n. plu.* [Gk. *deuteros*, second; *soma*, body.] Granules of nucleolus cast out into cytoplasm, from which yolk is said to arise.
- deutosternum** (dū'tōstēr'nūm) *n.* [Gk. *deuteros*, second; *sternon*, chest.] Sternite of segment bearing pedipalpi in Acarina.
- deutovum** (dū'tōvūm) *n.* [Gk. *deuteros*, second; L. *ovum*, egg.] A stage in the metamorphosis of certain mites, a secondary or deutovarial membrane surrounding the embryo until the larval stage.
- development** (dēvēl'ōpmēnt) *n.* [F. *développer*, to unfold.] The changes undergone by an organism from its beginning to maturity.
- deviation** (dēviā'shūn) *n.* [L. *de*, away from; *via*, way.] Divergence from corresponding developmental stages.
- Devonian** (dēvō'nīān) *a.* [*Devon*, where strata were first studied.] *Pert.* or *appl.* Palaeozoic geological period preceding Carboniferous.
- dexiotropic** (dēk'siōtrōp'īk) *a.* [Gk. *dexios*, right; *trope*, turn.] Turning from left to right, as whorls; *appl.* shells; *appl.* spiral cleavage of cells; *appl.* movement of Volvox.
- dextral** (dēk'strāl) *a.* [L. *dexter*, right-hand.] Dexiotropic, *q.v.*

dextrin (dĕk'strĭn) *n.* [L. *dexter*, right-hand.] A soluble substance derived from starch by exposure to high temperature for a short time.

dextrorse (dĕkstrōrs') *a.* [L. *dexter*, right; *vertere*, to turn.] Growing in a spiral which twines from left to right; clockwise. *Opp.* sinist-rorse.

dextrose (dĕk'strōs) *n.* [L. *dexter*, right.] Grape sugar or glucose, the end product of starch digestion, $C_6H_{12}O_6$.

diabetogenic (diābē'tōjĕn'ĭk) *a.* [Gk. *diabainein*, to cross over; *gignesthai*, to beget.] Causing diabetes; *appl.* a prepituitary hormone antagonistic to insulin, affecting carbohydrate metabolism; *appl.* a hormone of sinus gland of eye stalk in crustaceans.

diachaenium (dī'ākĕ'nĭŭm) *n.* [Gk. *dis*, twice; *a*, not; *chainein*, to gape.] Each part of a cremocarp.

diachronous (diāk'rōnūs) *a.* [Gk. *dia*, asunder; *chronos*, time.] Dating from different periods; *appl.* fossils occurring in the same geological formation, though in different areas, due, e.g., to changes in sea-level.

diachyma (diāk'imā) *n.* [Gk. *dia*, throughout; *chymos*, juice.] Leaf parenchyma.

diacoel (dī'āsēl) *n.* [Gk. *dia*, through; *koilos*, hollow.] Third ventricle of brain.

diacranteric (dī'āk'rāntēr'ĭk) *a.* [Gk. *dia*, asunder; *kranteres*, wisdom teeth.] With diastema between front and back teeth, as in snakes.

diactinal (diāk'tĭnāl) *a.* [Gk. *dis*, twice; *aktis*, ray.] With two rays pointed at ends.

diadelphous (dī'ādēl'fūs) *a.* [Gk. *dis*, twice; *adelphos*, brother.] Having stamens in two bundles owing to fusion of filaments.

diadematoïd (dī'ādēm'atoid) *a.* [Gk. *diadema*, crown; *eidos*, shape.] Of Echinoidea, having three primary pore plates with occasionally a secondary between aboral and middle primary; as *opp.* arbacioïd,

one primary, with secondary on each side, and triplechinoid, two primaries, with one or more secondaries between.

diadromous (diād'rōmūs) *a.* [Gk. *diadromos*, wandering.] Having nerves or veins radiating in fan-like manner; *appl.* leaves.

diaene (dī'ēn) *n.* [Gk. *dis*, twice; an analogy of triaene, from Gk. *triaina*, trident.] A form of triaene, with one of the cladi reduced or absent.

diageotropism (dī'ājēōt'rōpĭzm) *n.* [Gk. *dia*, through; *ge*, earth; *trope*, turn.] Tendency in certain parts of plants to assume position at right angles to direction of gravity.

diagnosis (dī'āgnō'sĭs) *n.* [Gk. *diagnosis*, discrimination.] A concise description of an organism with full distinctive characters; discrimination of a physiological or pathological condition by its distinctive signs.

diagnostic (dī'āgnōs'tĭk) *a.* [Gk. *diagnosis*, discrimination.] Distinguishing; differentiating the species or genus, etc., from others similar.

diaheliotropism (dī'āhēlĭōt'rōpĭzm) *n.* [Gk. *dia*, through; *helios*, sun; *trope*, turn.] Diaphototropism.

diakinesis (dī'ākĭnē'sĭs) *n.* [Gk. *dia*, through; *kinesis*, movement.] The later prophase stage of meiosis, between diplotene and prometaphase; movement of chromosomes between metaphase and telophase.

dialyneury (dī'ālĭnū'rĭ) *n.* [Gk. *dialyein*, to reconcile; *neuron*, nerve.] In certain gastropods, condition of having pleural ganglia united to opposite visceral nerve by anastomosis with pallial nerve.

dialypetalous (dī'ālĭpēt'ālūs) *a.* [Gk. *dia*, asunder; *lyein*, to loose; *petalon*, leaf.] Polypetalous.

dialyphyllous (dī'ālĭfĭl'ūs) *a.* [Gk. *dia*, asunder; *lyein*, to loose; *phyllon*, leaf.] With separate leaves.

dialysepalous (dī'ālĭsēp'ālūs) *a.* [Gk. *dia*, asunder; *lyein*, to loose; F. *sépale*, sepal.] Polysepalous.

dialysate (diāl'ísāt) *n.* [Gk. *dialysis*, parting.] Any substance which passes through a semipermeable membrane during dialysis; dif-fusate. *Opp.* retentate.

dialysis (diāl'ísís) *n.* [Gk. *dia*, asunder; *lysis*, loosing.] Separation of dissolved crystalloids and colloids through semipermeable membrane, crystalloids passing more readily; permeation.

dialystely (di'álistē'li) *n.* [Gk. *dia*, asunder; *lyein*, to loose; *stela*, post.] A condition in which the steles in the stem remain more or less separate.

diamesogamous (di'ámēsōg'āmūs) *a.* [Gk. *dia*, through; *mesos*, medium; *gamos*, marriage.] Fertilised through external agency, as by means of wind, insects, etc.

diancistron (di'ānsis'tron) *n.* [Gk. *dis*, twice; *angcistron*, hook.] A spicule resembling a stout sigma, but the inner margin of both hook and shaft thins out to a knife edge and is notched. *Plu.* diancistra.

diandrous (diān'drūs) *a.* [Gk. *dis*, twice; *aner*, man.] Having two free stamens.

diapause (di'ápōz) *n.* [Gk. *diapauin*, to make to cease.] A spontaneous state of dormancy during development, as of insects; resting stage between anatrepsis and katrepsis in blastokinesis; sexual rest period, *appl.* annelids; *cf.* quiescence.

diapedesis (di'ápēdē'sis) *n.* [Gk. *diapedesis*, leaping through.] Emigration of white blood corpuscles through walls of capillaries into surrounding tissue; migration of cells to exterior, in certain larval sponges.

diaphototropism (di'áfōtōt'rōpizm) *n.* [Gk. *dia*, through; *phos*, light; *trope*, turn.] Tendency of plant organs to assume a position at right angles to rays of light; dia-heliotropism.

diaphragm (di'áfrām), **diaphragma** (di'áfrāgmā) *n.* [Gk. *diaphragma*, midriff.] The wall which separates

the small cell, the prothallus, from rest of macrospore in Hydropterideae; a septum at nodes in Equisetum; a sheet of muscular tissue attached to introvert in worms; single strongly developed septum in Terebelliformia; perforated tissue that subdivides tentacle cavity in Polyzoa; a fibro-muscular abdominal septum enclosing perineural sinus in certain insects; the transverse septum separating cephalothorax from abdomen in certain Arachnida; a special fan-shaped muscle spreading from anterior end of ilia to oesophagus and base of lungs in Anura; a partition partly muscular, partly tendinous, separating cavity of chest from abdominal cavity in mammals; fold of dura mater on sella turcica.

diaphysis (diāf'ísis) *n.* [Gk. *dia*, through; *phyein*, to bring forth.] Shaft of limb bone, *opp.* epiphysis; abnormal growth of an axis or shoot.

diaplexus (di'aplēk'sūs) *n.* [Gk. *dia*, through; *L. plexus*, interwoven.] Chorioid plexus of the third ventricle of the brain.

diapophysis (di'apōf'ísis) *n.* [Gk. *dia*, through; *apo*, from; *phyein*, to produce.] Lateral or transverse process of neural arch.

diapsid (diāp'sid) *a.* [Gk. *dis*, twice; *apsis*, arch.] *Appl.* skulls with supra- and infra-temporal fossae distinct; *cf.* synapsid.

diarch (di'árk) *a.* [Gk. *dis*, twice; *arche*, origin.] With two xylem and two phloem bundles; *appl.* root in which protoxylem bundles meet and form a plate of tissue across cylinder with phloem bundle on each side; *appl.* a bipolar type of spindle.

diarthric (diār'thrik) *a.* [Gk. *dis*, twice; *arthron*, joint.] *Pert.* two joints; biarticulate.

diarthrosis (di'arthrō'sis) *n.* [Gk. *dis*, twice; *arthron*, joint.] An articulation allowing considerable movement.

diaschistic (di'askís'tík) *a.* [Gk. *dia*, through; *schistos*, split.] *Appl.* type of tetrads which divide once transversely and once longitudinally in meiosis; *cf.* anaschistic.

diaspore (di'áspör) *n.* [Gk. *diaspora*, dispersion (*dia*, asunder; *spora*, seed).] Any spore, seed, fruit, or other portion of a plant when being dispersed and able to produce a new plant; disseminule, propagule.

diastase (di'ástās) *n.* [Gk. *diastanai*, to separate.] An enzyme which acts principally in converting starch into sugar.

diastasis (diás'tásis) *n.* [Gk. *diastasis*, interval.] Rest period preceding systole.

diastatic (di'ástát'ík) *a.* [Gk. *dia*, through; *histanai*, to set.] *Pert.* diastase, or having similar properties; *pert.* diastasis.

diastem (di'ástēm), **diastema** (diás'tēmā) *n.* [Gk. *diastema*, interval.] A toothless space usually between two types of teeth; an equatorial modification of protoplasm preceding cell division.

diaster (diás'tēr) *n.* [Gk. *dis*, twice; *aster*, star.] The stage in mitosis where daughter chromosomes are grouped near spindle poles ready to form a new nucleus.

diastole (diás'tölē) *n.* [Gk. *diastole*, difference.] Rhythmical relaxation of heart; rhythmical expansion of a contractile vacuole. *Opp.* systole.

diastomatic (di'ástömát'ík) *a.* [Gk. *dia*, through; *stoma*, mouth.] Through stomata or pores; giving off gases from spongy parenchyma through stomata.

diathesis (diáth'ésis) *n.* [Gk. *diathesis*, disposition.] A constitutional predisposition to a type of reaction, disease, or development.

diatom (di'ätöm) *n.* [Gk. *dia*, through; *temnein*, to cut.] A unicellular form of alga with walls impregnated with silica.

diatomin (diät'ömin) *n.* [Gk. *diatemnein*, to cut through.] A yellow pigment resembling fucoxanthin, in plastids of diatoms.

diatropism (diät'röpízm) *n.* [Gk. *dia*, through; *trope*, turn.] The tendency of organs or organisms to place themselves at right angles to line of action of stimulus.

diaxon (diäk'són) *a.* [Gk. *dis*, twice; *axon*, axis.] With two axes, as certain sponge spicules.

diaxone (diäk'són) *n.* [Gk. *dis*, twice; *axon*, axis.] A nerve-cell with two axis-cylindrical processes.

diblastula (diblás'tulā) *n.* [Gk. *dis*, twice; *blastos*, bud.] A coelenterate embryo consisting of two layers arranged round a central cavity.

dibranchiate (dibrāng'kiät) *a.* [Gk. *dis*, twice; *branchia*, gills.] With two gills.

dicaryo,—**dikaryo**.

dicellate (di'selät) *a.* [Gk. *dikella*, two-pronged hoe.] With two prongs; *appl.* sponge spicules.

dicentral (disēn'träl) *a.* [Gk. *dia*, through; *kentron*, centre.] *Appl.* canal in fish vertebral centrum.

dicentric (disēn'trik) *a.* [Gk. *dis*, twice; *kentron*, centre.] Having two centromeres; *appl.* chromatids, chromosomes.

dicerous (dis'ērüs) *a.* [Gk. *dikeros*, two-horned.] Having two horns; with two antennae.

dichasium (dikā'zium) *n.* [Gk. *dichazein*, to divide in two.] A cymose inflorescence in which two lateral branches occur about same level.

dichlamydeous (di'klämid'ëüs) *a.* [Gk. *dis*, twice; *chlamys*, cloak.] Having both calyx and corolla.

dichocarpous (dikökär'püs) *a.* [Gk. *dichos*, in two ways; *karpos*, fruit.] With two forms of fructification, *appl.* certain fungi.

dichogamy (dikög'amī) *n.* [Gk. *dicha*, in two; *gamos*, marriage.] Maturing of sexual elements at different times, ensuring cross-fertilisation; *cf.* protandry, protogyny.

dichophysis (diköf'isis) *n.* [Gk. *dicha*, in two; *physis*, constitution.] A rigid dichotomous hypha, as in hymenium and trama.

dichoptic (dīkōp'tik) *a.* [Gk. *dicha*, in two; *opsis*, sight.] With eyes quite separate.

dichorhinic (dīk'ōrī'nik) *a.* [Gk. *dicha*, differently; *rhines*, nostrils.] *Pert.* the nostrils separately; *appl.* different olfactory stimuli.

dichotomous (dīkōt'ōmūs) *a.* [Gk. *dicha*, in two; *temnein*, to cut.] *Pert.*, characterised by dichotomy.

dichotomy (dīkōt'ōmī) *n.* [Gk. *dicha*, in two; *temnein*, to cut.] Branching which results from division of growing point into two equal parts; repeated forking.

dichroic (dīkrō'ik) *a.* [Gk. *dis*, twice; *chros*, colour.] Exhibiting dichroism, as chlorophyll solution; *cf.* dichromatic.

dichroism (dī'krōīzm) *n.* [Gk. *dis*, twice; *chros*, colour.] Property of showing two colours, as one colour by transmitted and the other by reflected light.

dichromatic (dī'krōmāt'ik) *a.* [Gk. *di-*, two; *chroma*, colour.] With two colour varieties; seeing only two colours.

dichromic,—dichroic, *q.v.*; dichromatic, *q.v.*

dichromophil (dīkrōm'ōfil) *a.* [Gk. *di-*, two; *chroma*, colour; *philein*, to love.] Staining with both acid and basic dyes.

dichthadiigyne (dīkthādīī'jīnē) *n.* [Gk. *dichthadios*, double; *gyne*, female.] A gynaeoid ant with voluminous ovaries, and without eyes and wings; a dichthadiiform female.

diclinous (dī'klīnūs, dīklī'nūs) *a.* [Gk. *di-*, asunder; *kline*, bed.] With stamens and pistils on separate flowers; with staminate and pistillate flowers on same plant.

dicocous (dīkōk'ūs) *a.* [Gk. *di-*, two; *kokkos*, kernel.] Having two one-seeded coherent capsules.

dicoealous (dīsē'lūs) *a.* [Gk. *di-*, two; *koilos*, hollow.] Having two cavities.

dicont,—dikont.

dicostalia (dī'kōstā'liā) *n.* [Gk. *di-*, two; *L. costa*, rib.] The secundibrachs or second brachial series in a crinoid.

dicotyledon (dīkōtilē'dōn) *n.* [Gk. *di-*, two; *kotyledon*, cup-shaped hollow.] A plant with two seed-leaves.

dicratic (dīkrāt'ik) *a.* [Gk. *di-*, two; *kratos*, power.] With two spores of a tetrad being of one sex, and the other two of the opposite sex; *appl.* basidium. *Opp.* monocratic.

dictyodromous (dīk'tiōd'rōmūs) *a.* [Gk. *diktyon*, net; *dramein*, to run.] Net-veined, when the smaller veins branch and anastomose freely.

dictyogen (dīk'tiōjēn) *n.* [Gk. *diktyon*, net; *genes*, producing.] A net-leaved plant.

dictyokinesis (dīk'tiōklnē'sis) *n.* [Gk. *diktyon*, net; *kinesis*, movement.] The breaking-up of the Golgi-apparatus at mitosis and segregation of dictyosomes to daughter-cells.

dictyonalia (dīk'tiōnā'liā) *n.* [Gk. *diktyon*, net.] The principal parenchyma spicules of Dictyonina and of many Lyssacina.

dictyosome (dīk'tiōsōm) *n.* [Gk. *diktyon*, net; *soma*, body.] An element of the Golgi-apparatus, *q.v.*

dictyospore (dīk'tiōspōr) *n.* [Gk. *diktyon*, net; *sporos*, seed.] A spore, with transverse and longitudinal septa, of reticular appearance; muriform spore.

dictyostele (dīk'tiōstē'lē) *n.* [Gk. *diktyon*, net; *stete*, post.] A network formed by meristemes.

dictyotic (dīk'tiōt'ik) *a.* [Gk. *diktyon*, net.] *Appl.* moment of shell or skeleton formation, or lorication moment, as of siliceous skeleton of radiolarians; *appl.* stage in cell growth where chromosomes are lost to view in nuclear reticulum.

dicyclic (dīsk'lik) *a.* [Gk. *di-*, two; *kyklos*, circle.] Having a row of perradial infrabasals, *appl.* theca of Crinoidea; with two whorls; biennial, *appl.* herbs.

dicystic (dīsīs'tik) *a.* [Gk. *di-*, two; *kystis*, bag.] With two encysted stages.

didactyl (dīdāk'til) *a.* [Gk. *di-*, two; *daktylos*, digit.] Having two fingers, toes or claws.

didelphic (dīdēl'fīk) *a.* [Gk. *di-*, double; *delphys*, womb.] Having two uteri, as marsupials; amphidelphic.

didymospore (dīd'īmōspōr) *n.* [Gk. *didymos*, twin; *sporos*, seed.] A two-celled spore.

didymous (dīd'īmūs) *a.* [Gk. *didymos*, twin.] Growing in pairs.

didynamous (dīd'īn'āmūs) *a.* [Gk. *di-*, two; *dynamis*, power.] With four stamens, two long, two short.

diecious,—dioecious, *q.v.*

diel (dī'ēl) *a.* [L. *dies*, day.] During or *pert.* 24 hours; at 24-hour intervals; *appl.* life rhythms; *cf.* crepuscular, diurnal, nocturnal.

diencephalon (dī'ēnkēf'ālōn, -sēf'-) *n.* [Gk. *dia*, between; *engkephalos*, brain.] Part of the fore-brain, comprising thalamencephalon, pars mamillaris hypothalami, and posterior part of third ventricle; between-brain, 'tween-brain, inter-brain.

diestrum,—dioestrus, *q.v.*

differentiation (dīf'ērēn'shīā'shūn) *n.* [L. *differre*, to differ.] Modification in structure and function of the parts of an organism, owing to division of labour.

diffuence (dif'looēns) *n.* [L. *dis*, away; *fluere*, to flow.] Disintegration by vacuolisation.

diffusate (difū'sāt) *n.* [L. *diffusus*, poured forth.] Any substance which passes through a semipermeable membrane during dialysis; dialysate. *Opp.* retentate.

diffuse (difūs') *a.* [L. *diffundere*, to pour.] Widely spread; not localised; not sharply defined at margin; *appl.* placenta with villi on all parts except poles.

diffuse-porous,—*appl.* wood in which vessels of approximately the same diameter tend to be evenly distributed in a growth ring; *cf.* ring-porous.

digametic (dīgāmēt'īk) *a.* [Gk. *dis*, twice; *gametes*, spouse.] Exhibiting digamety; having two types of gametes, one producing males, the other females; heterogametic.

digastric (dīgās'trīk) *a.* [Gk. *di-*, two; *gaster*, belly.] Two-bellied, *appl.* muscles fleshy at ends, tendinous in middle; biventral; *appl.* one of the suprahyoid muscles; *appl.* a branch of facial nerve.

digenesis (dijēn'ēsīs) *n.* [Gk. *dis*, twice; *genesis*, descent.] Alternation of generations, *q.v.*

digenetic (dī'jēnēt'īk) *a.* [Gk. *dis*, twice; *genesis*, descent.] *Pert.* digenesis; requiring an alternation of hosts, *appl.* certain parasites.

digenic (dijēn'īk) *a.* [Gk. *dis*, twice; *genos*, descent.] *Pert.* or controlled by two genes.

digenoporous (dī'jēnöp'ōrūs) *a.* [Gk. *dis*, twice; *genos*, birth; *poros*, pore.] With two genital pores, *appl.* many Turbellaria.

digestion (dijēs'chūn) *n.* [L. *digestio*, digestion.] The process by which nutrient materials are rendered absorbable by action of various juices.

digestive (dijēs'tīv) *a.* [L. *digestio*, digestion.] *Pert.* digestion, or having power of aiding in digestion.

digit (dij'it) *n.* [L. *digitus*, finger.] Terminal division of limb in any vertebrate above fishes; toe or finger; distal part of chelae and chelicerae.

digital (dij'itāl) *a.* [L. *digitus*, finger.] *Pert.* finger or digit; also *appl.* structures resembling a digit. *n.* Distal joint of spider's pedipalp.

digitaliform (dij'itāl'ifōrm) *a.* [L. *digitus*, finger; *forma*, shape.] Finger-shaped, *appl.* corollae which are like the finger of a glove.

digitate (dij'itāt) *a.* [L. *digitus*, finger.] Having parts arranged like the fingers in a hand; with fingers.

digitiform (dij'itīfōrm) *a.* [L. *digitus*, finger; *forma*, shape.] Finger-shaped; *appl.* roots.

digitigrade (dij'itigrād') *a.* [L. *digitus*, finger; *gradus*, step] Walking with only the digits touching the ground.

digitinervate (dij'itiner'vāt) *a.* [L. *digitus*, finger; *nervus*, sinew.] Having veins radiating out from base like fingers of a hand, with usually five or seven veins; *appl.* leaves.

digitipartite (dij'itipār'tit) *a.* [L. *digitus*, finger; *partire*, to divide.] Having leaves divided up in a hand-like pattern.

digitipinnate (dij'itipīn'āt) *a.* [L. *digitus*, finger; *pinnā*, feather.] Having digitate leaves of which the leaflets are pinnate.

digitule (dij'itūl) *n.* [L. *digitulus*, little finger.] Any small finger-like process; small process on insect tarsi.

digitus,—see digit.

diglyphic (diglif'ik) *a.* [Gk. *dis*, twice; *glyphein*, to engrave.] Having two siphonoglyphs.

digoneutic (di'gōnū'tik) *a.* [Gk. *dis*, twice; *goneucin*, to produce.] Breeding twice a year.

digonic (digōn'ik) *a.* [Gk. *dis*, twice; *gone*, seed.] Producing male and female gametes in separate gones in the same individual; *cf.* amphigonic.

digonoporous (di'gōnōp'ōrūs) *a.* [Gk. *dis*, twice; *gone*, seed; *poros*, pore.] With two distinct genital apertures, male and female.

digynous (dij'inūs) *a.* [Gk. *di-*, two; *gyne*, woman.] Having two carpels.

diheliotropism, — diaheliotropism, *q.v.*

diheterozygote (di'hētērozi'gōt) *n.* [Gk. *dis*, twice; *heteros*, other; *zygotos*, yoked together.] A dihybrid.

dihybrid (dihī'brīd) *n.* [Gk. *dis*, twice; L. *hibrida*, mixed offspring.] A cross whose parents differ in two distinct characters; an organism heterozygous regarding two pairs of alleles.

dihydrotachysterol,—vitamin D₄, irradiation product of dihydro derivative of ergosterol, which counteracts impaired parathyroid function; C₂₈H₄₆O.

dikaryon (dikā'riōn) *n.* [Gk. *dis*, twice; *karyon*, nucleus.] A pair of nuclei, as in cells of ascogenous hyphae.

dikaryospore (dikār'iōspōr) *n.* [Gk. *dis*, double; *karyon*, kernel; *sporos*, seed.] A spore with two nuclei.

dikaryotic,—*pert.* dikaryon; diploid.

dikont (di'kōnt) *a.* [Gk. *dis*, twice; *kontos*, punting-pole.] Having two flagella; biflagellate, dimastigote.

dilatator,—dilator, *q.v.*

dilated (dilā'tēd) *a.* [L. *dilatare*, to enlarge.] Expanded, or flattened; *appl.* parts of insects, etc., with a wide margin.

dilator (dilā'tōr) *n.* [L. *dilatare*, to expand.] Name *appl.* any muscle that expands or dilates an organ.

dilemma (dilēm'ā) *n.* [Gk. *dis*, double; *lemma*, assumption.] Distinction of alternative stimuli, retarding the reaction.

dilophous (dilōf'ūs) *a.* [Gk. *di-*, two; *lophos*, crest.] *Appl.* a tetractinal spicule with two rays forked like a crest.

diluvial (dilū'viāl) *a.* [L. *diluvium*, deluge.] *Pert.* the present, in geological reckoning.

dimastigote (dimās'tigōt) *a.* [Gk. *dis*, twice; *mastix*, whip.] Having two flagella; biflagellate, dikont.

dimegaly (dimēg'ālī) *n.* [Gk. *dis*, twice; *megalos*, great.] Condition of having two sizes or a bimodal size frequency; *appl.* spermatozoa, ova.

dimerous (dīm'ērūs) *a.* [Gk. *dis*, twice; *meros*, part.] In two parts; having each whorl of two parts; with a two-jointed tarsus.

dimidiate (dimīd'iāt) *a.* [L. *dimidius*, half.] Having only one-half developed; having capsule split on one side.

dimitic (dimīt'ik) *a.* [Gk. *dis*, twice; *mitos*, thread.] Having both supporting and generative hyphae. *cf.* trimitic.

dimorphic (dīmōr'fik) *a.* [Gk. *dis*, twice; *morphe*, shape.] Having, or *pert.*, two different forms.

dimorphism (dimôr'fizm) *n.* [Gk. *dis*, twice; *morphe*, shape.] Condition of having stamens of two different lengths, of having two different kinds of leaves, flowers, etc.; state of having two different forms according to sex, or of one sex, two different kinds of zooids, or of offspring; of broods which, owing to differing conditions, differ in size or colouring; state of having reciprocally transformable unicellular and filamentous types, as in some bacteria and fungi.

dimyariac (dimîâr'îk) *a.* [Gk. *dis*, twice; *mys*, muscle.] Having two adductor muscles; dimyarian.

dinergate (dinêr'gât) *n.* [Gk. *dinein*, to roam; *ergates*, worker.] A soldier ant.

dineuronic (dinûrôn'îk) *a.* [Gk. *dis*, twice; *neuron*, nerve.] With double innervation; *appl.* chromatophores with concentrating and dispersing nerve fibres.

dinomic (dinôm'îk) *a.* [Gk. *dis*, twice; *nomos*, district.] *Appl.* an organism restricted to two of the biogeographical divisions of the globe.

dioecious (diê'siûs) *a.* [Gk. *dis*, twice; *oikos*, house.] Having sexes separate; having male and female flowers on different individuals; gonochoristic; exhibiting dioecism or gonochorism.

dioestrus (diê'strûs) *n.* [Gk. *dia*, between; *oistros*, gadfly.] The quiescent period between heat periods in polyoestrous animals; dioestrum.

dioicous,—dioecious.

dionychous (diôn'îkûs) *a.* [Gk. *di*, two; *onyx*, nail.] Having two claws, as on tarsi of certain spiders.

dioptrate (diöp'trât) *a.* [Gk. *dis*, twice; *ops*, eye.] Having eyes or ocelli separated by a narrow line.

dioptric (diöp'trik) *a.* [Gk. *dioptron*, spying-glass.] *Pert.* transmission and refraction of light; *appl.* structures, as cornea, lens, aqueous and vitreous humors.

diorchic (diôr'kîk) *a.* [Gk. *dis*, twice; *orchis*, testis.] Having two testes.

dipetalous (dipêt'âlûs) *a.* [Gk. *dis*, twice; *petalon*, leaf.] Having two petals.

diphasic (difâ'zîk) *a.* [Gk. *dis*, twice; *phainein*, to appear.] *Appl.* extended life cycle of some protozoa, including the active stage; *cf.* monophasic; periodically changing two states or appearances, as of winter and summer pelage or plumage.

diphycercal (dif'îsêr'kâl) *a.* [Gk. *diphyes*, twofold; *kerkos*, tail.] With a tail in which vertebral column runs straight to tip, thereby dividing the fin symmetrically.

diphygenetic (dif'îjênêt'îk) *a.* [Gk. *diphyes*, twofold; *genes*, begotten.] Producing embryos of two different types, as Dicyemida.

diphygenic (dif'îjên'îk) *a.* [Gk. *diphyes*, twofold; *genos*, descent.] With two types of development.

diphyletic (di'filêt'îk) *a.* [Gk. *dis*, twice; *phylon*, race.] *Pert.* or having origin in two lines of descent.

diphyllous (difil'ûs) *a.* [Gk. *dis*, twice; *phyllon*, leaf.] Two-leaved.

diphyodont (dif'îödönt') *a.* [Gk. *diphyes*, twofold; *odous*, tooth.] With deciduous and permanent sets of teeth.

diplanetary (diplân'êtâri), **diplanetic** (di'plânêt'îk) *a.* [Gk. *dis*, twice; *planetikos*, wandering.] With two distinct types of zoospores.

diplanetism (diplân'êtîzm) *n.* [Gk. *dis*, twice; *planetikos*, wandering.] Condition of having two periods of motility in one life history, as of zoospores in some fungi.

diplarthrous (diplâr'thrûs) *a.* [Gk. *diploos*, double; *arthron*, joint.] With tarsal or carpal bones of one row articulating with two bones in the other.

dipleurula (diploor'ulâ) *n.* [Gk. *dis*, twice; *pleuron*, side.] A bilaterally symmetrical larva of echinoderms; an echinopaedium.

diplobiont (dīp'lōbī'ōnt) *n.* [Gk. *dīploos*, double; *bion*, living.] An organism characterised by two kinds of individuals, asexual and sexual.

diploblastic (dīp'lōblās'tīk) *a.* [Gk. *dīploos*, double; *blastos*, bud.] Having two distinct germ layers.

diplocardiac (dīp'lōkār'dīāk) *a.* [Gk. *dīploos*, double; *kardia*, heart.] With the two sides of the heart quite distinct.

diplocaulescent (dīp'lōkōlē'sēnt) *a.* [Gk. *dīploos*, double; *kaulos*, stem.] With secondary stems.

diplochlamydeous (dīp'lōklāmīd'-ēūs) *a.* [Gk. *dīploos*, double; *chlamys*, cloak.] Having a double perianth.

diplochromosome (dīp'lōkrō'mōsōm) *n.* [Gk. *dīploos*, double; *chroma*, colour; *soma*, body.] Anomalous chromosome having four chromatids, instead of two, attached to centromere.

diplocyte (dīp'lōsīt) *n.* [Gk. *dīploos*, double; *kytos*, hollow.] A cell having conjugate nuclei; synkaryocyte.

diplodal (dīp'lōdāl) *a.* [Gk. *dīploos*, double; *hodos*, way.] Having both prosodus and aphodus; *appl.* Porifera.

diploe (dīp'lōē) *n.* [Gk. *dīploē*, double.] The cancellous tissue between outer and inner lamellae of certain skull bones; tail of scorpion; mesophyll.

diplogangliate (dīp'lōgāng'glīāt) *a.* [Gk. *dīploos*, double; *ganglion*, ganglion.] With ganglia in pairs.

diplogenesis (dīp'lōjēn'ēsīs) *n.* [Gk. *dīploos*, double; *genesis*, descent.] Supposed change in germ plasma that accompanies 'use and disuse' changes occurring in body tissues; development of two parts instead of usual single part.

diploic (dīplō'īk) *a.* [Gk. *dīploos*, double.] Occupying channels in cancellous tissue of bones; *pert.* diploe.

diploid (dīp'lōid) *a.* [Gk. *dīploos*,

double; *eidos*, form.] Having a double set of chromosomes; *appl.* typical or zygotic somatic number of chromosomes of a species. *n.* A diploid organism; *cf.* haploid.

diploidisation,—doubling of number of chromosomes in haploid cells or hyphae.

diplokaryon (dīp'lōkār'īōn) *n.* [Gk. *dīploos*, double; *karyon*, nut.] A nucleus with two diploid sets of chromosomes, *opp.* amphikaryon.

diplonema (dīp'lōnē'mā) *n.* [Gk. *dīploos*, double; *nema*, thread.] Double thread of diplotene stage in meiosis.

diplo nephridia (dīp'lōnēfrīd'īā) *n. plu.* [Gk. *dīploos*, double; *nephros*, kidney; *idion*, dim.] Nephridia derived partly from ectoderm, partly from mesoderm.

diplo neural (dīp'lōnū'rāl) *a.* [Gk. *dīploos*, double; *neuron*, nerve.] Supplied with two nerves.

diplont (dīp'lōnt) *n.* [Gk. *dīploos*, double; *on*, being.] An organism having diploid somatic nuclei, *opp.* haplont.

diploperistomous (dīp'lōpērīs'tōmūs) *a.* [Gk. *dīploos*, double; *peri*, around; *stoma*, mouth.] Having a double projection or peristome.

diplophase (dīp'lōfāz) *n.* [Gk. *dīploos*, double; *phasis*, aspect.] Stage in life history of an organism when nuclei are diploid; sporophyte phase; diplotene stage in meiosis.

diplophyll (dīp'lōfil) *n.* [Gk. *dīploos*, double; *phyllon*, leaf.] A leaf having palisade tissue on upper and lower side with intermedial spongy parenchyma.

diplophyte (dīp'lōfīt) *n.* [Gk. *dīploos*, double; *phyton*, plant.] A diploid plant or sporophyte. *Opp.* haplophyte or gametophyte.

diploplacula (dīp'lōplāk'ulā) *n.* [Gk. *dīploos*, double; *plakoeis*, flat cake.] A flattened blastula consisting of two layers of cells.

diplopore (dīp'lōpōr) *n.* [Gk. *dīploos*, double; *poros* passage.] Respiratory organ in Cystoidea.

- diploptile** (dip'lōtīl, -ptīl) *a.* [Gk. *diploos*, double; *ptilon*, feather.] Double neosoptile, without rachis, formed by precocious development of the barbs of the teleoptile.
- diplosis** (dip'lō'sis) *n.* [Gk. *diploos*, double.] Doubling of the chromosome number, in syngamy.
- diplosome** (dip'lōsōm) *n.* [Gk. *diploos*, double; *soma*, body.] A double centrosome lying outside the nuclear membrane; a paired heterochromosome.
- diplosomite** (dip'lōsō'mīt) *n.* [Gk. *diploos*, double; *soma*, body.] Body segment consisting of two annular parts, prozonite and metazonite, in Diplopoda.
- diplosphene** (dip'lōsfēn) *n.* [Gk. *diploos*, double; *sphen*, wedge.] Wedge-shaped process on neural arch of certain fossil reptiles.
- diplospondylic** (dip'lōspōndīl'ik) *a.* [Gk. *diploos*, double; *sphondylos*, vertebra.] With two centra to each myotome, or with one centrum and well-developed intercentrum; exhibiting diplospondyly.
- diplostemonous** (dip'lōstēm'ōnūs) *a.* [Gk. *diploos*, double; *stemon*, warp.] With two whorls of stamens in regular alternation with perianth leaves; with stamens double the number of petals.
- diplostichous** (dip'lōstīk'ūs) *a.* [Gk. *diploos*, double; *stichos*, row.] Arranged in two rows or series.
- diplostromatic** (dip'lōstrōmāt'ik) *a.* [Gk. *diploos*, double; *stroma*, bedding.] *Appl.* fungi having both entostroma and ectostroma. *Opp.* haplostromatic.
- diplogegia** (dip'lōtē'jiā) *n.* [Gk. *diploos*, double; *tegos*, roof.] An inferior fruit with dry dehiscent pericarp.
- diplogene** (dip'lōtēn) *a.* [Gk. *diploos*, double; *tainia*, band.] *Appl.* stage in meiosis at which bivalent chromosomes split longitudinally.
- diploxylic** (dip'lōzīl'ik) *a.* [Gk. *diploos*, double; *xylon*, wood.] *Appl.* leaf-trace bundles with inner and outer strands of wood, in certain extinct plants.
- diplozoic** (dip'lōzō'ik) *a.* [Gk. *diploos*, double; *zoon*, animal.] Bilaterally symmetrical.
- dipnoan** (dip'nōān) *a.* [Gk. *dis*, twice; *pnein*, to breathe.] Breathing by gills and lungs.
- dipolar**,—bipolar.
- diporpa** (dipōr'pā) *n.* [Gk. *dis*, double; *porpe*, buckle.] Embryo of the trematode Diplozoon, which permanently unites with another.
- diprotodont** (diprō'tōdōnt) *a.* [Gk. *dis*, twice; *protos*, first; *odous*, tooth.] Having two anterior incisors large and prominent, the rest of incisors and canines being smaller or absent.
- dipterocecidium** (dip'tērōsēsīd'ium) *n.* [Gk. *dis*, twice; *pteron*, wing; *kekis*, gall nut; *idion*, dim.] Gall caused by a dipterous insect.
- dipterous** (dip'tērūs) *a.* [Gk. *dis*, twice; *pteron*, wing.] With two wings or wing-like expansions; *pert.* Diptera.
- directive bodies**,—polar bodies.
- directive mesenteries**,—in Zoantharia, the dorsal and ventral pairs of mesenteries.
- directive sphere**,—centrosphere.
- dirhinic** (dī'rīnik) *a.* [Gk. *di-*, two; *rhines*, nostrils.] Having two nostrils; *pert.* both nostrils. *Cf.* dichorhinic.
- disaccharides** (disāk'āridz) *n. plu.* [Gk. *dis*, twice; L. *saccharum*, sugar.] Sugars composed of two simple sugars, *e.g.*, lactose, maltose, sucrose.
- disarticulate** (dis'ārtīk'ulāt) *v.* [L. *dis*, asunder; *articulatus*, jointed.] To separate at a joint. *a.* Separated at a joint or joints.
- disc** (disk) *n.* [L. *discus*, disc.] Any flattened portion like a disc in shape; middle part of capitulum in Compositae; adhesive tip of tendril; base of sea-weed thallus; circumoral area in many animals; circular areas at opposite poles of many animals; any modification of thalamus; area marking entrance

of optic nerve into eye; cup-shaped tactile structures in skin; mass of cells of *membrana granulosa* which projects into cavity of egg follicle; anisotropic and isotropic parts of contractile fibrils of muscular tissue; disk.

disc-florets,—inner florets borne on abbreviated and reduced peduncle in many inflorescences.

discal (dis'kāl) *a.* [L. *discus*, disc.] *Pert.* any disc-like structure; *appl.* cross-vein between third and fourth longitudinal veins of insect wing. *n.* A large cell at base of wing of Lepidoptera completely enclosed by wing-nervures, also in some Diptera.

disciflorous (dis'kiflō'rūs, dis'iflō'rūs) *a.* [L. *discus*, disc; *flos*, flower.] With flowers in which receptacle is large and disc-like.

disciform (dis'kifōrm, dis'ifōrm) *a.* [L. *discus*, disc; *forma*, shape.] Flat and circular; disc-shaped, discoid.

disclimax (dis'klī'mäks) *n.* [Gk. *dis*, double; *klimax*, ladder.] Disturbance climax, stage in plant succession replacing or modifying true climax, usually due to animal and human agency; *e.g.* cultivated crops.

discoblastic (dis'köbläs'tik) *a.* [Gk. *diskos*, disc; *blastos*, bud.] *Pert.* meroblastic eggs in which area of segmentation is disc-shaped.

discoblastula (dis'köbläs'tulā) *n.* [Gk. *diskos*, disc; *blastos*, bud.] A blastula formed from a meroblastic egg with disc-like blastoderm.

discocarp (dis'kōkārp) *n.* [Gk. *diskos*, disc; *karpōs*, fruit.] Special enlargement of thalamus below calyx; apothecium; a disc-shaped ascocarp.

discocellular vein,—discal vein.

discoctasters (disk'ōktäs'tērzs) *n. plu.* [Gk. *diskos*, disc; *okto*, eight; *aster*, star.] Sponge spicules with eight rays terminating in discs, each disc corresponding in position to corners of a cube; modified hexactines.

discodactylous (dis'kōdāk'tilūs) *a.* [Gk. *diskos*, disc; *daktylos*, finger.] With sucker at end of digit.

discohexactine (dis'kōhēksäk'tin) *n.* [Gk. *diskos*, disc; *hex*, six; *aktis*, ray.] A sponge spicule with six equal rays meeting at right angles.

discohexaster (dis'kōhēksäs'tēr) *n.* [Gk. *diskos*, disc; *hex*, six; *aster*, star.] A hexactine with rays ending in discs.

discoid (dis'koid) *a.* [Gk. *diskos*, disc; *eidos*, form.] Flat and circular; disc-shaped, disciform.

discoidal (diskoi'dāl) *a.* [Gk. *diskos*, disc; *eidos*, form.] Disc-like; *appl.* segmentation in which blastoderm forms a one-layered disc or cap which spreads over yolk; *appl.* placenta.

discontinuity (dis'kōntinū'itī) *n.* [O.F. *discontinuer*; from L. *dis*, asunder; *continuarē*, to continue.] Occurrence in two or more separate areas or geographical regions; disjunction; *appl.* layer: thermocline.

discontinuous variation, — mutation, *q.v.*

disconula (diskōn'ulā) *n.* [Gk. *diskos*, disc.] Eight-rayed stage in larval development of certain Coelentera.

discooctaster,—discoctaster, *q.v.*

discoplacenta (dis'köpläsēn'tā) *n.* [L. *discus*, disc; *placenta*, placenta.] A placenta with villi on a circular cake-like disc.

discoplasm (dis'köplāzm) *n.* [Gk. *diskos*, disc; *plasma*, form.] Colourless framework or stroma of a red blood corpuscle.

discorhabd (dis'kōrābd) *n.* [Gk. *diskos*, disc; *rhabdos*, rod.] A linear sponge spicule with disc-like outgrowths or whorls of spines.

discous,—disciform, discoid.

discus (dis'kūs) *n.* [L. *discus*, Gk. *diskos*, quoit.] Disc; a flat and circular structure or part.

discus proligerus,—in a Graafian follicle, the mass of cells of *membrana granulosa* in which the ovum is embedded.

disjunct (dísjüngkt') *a.* [L. *disiunctus*, separated.] With body regions separated by deep constrictions.

disjunction (dísjüngk'shün) *n.* [L. *disiunctus*, separated.] Divergence of paired chromosomes at anaphase; geographical distribution in discontinuous areas.

disjunctive symbiosis,—a mutually helpful condition of symbiosis although there is no direct connection between the partners.

disjunctor (dísjüngk'tör) *n.* [L. *disiunctus*, separated.] Weak connective structure, or an intercalary cell, and zone of separation between successive conidia; 'bridge', connective.

disk (disk) *n.* [Gk. *diskos*, disc.] See disc.

disomic (dí'sömik) *a.* [Gk. *dis*, twice; *soma*, body.] *Pert.* or having two homologous chromosomes, or genes.

disoperation (dis'öpërä'shün) *n.* [L. *dis*-, asunder; *operatio*, work.] Co-actions resulting in disadvantage to individual or to group; indirectly harmful influence of organisms upon each other.

dispermic (dispër'mik) *a.* [Gk. *dis*, twice; *sperma*, seed.] *Pert.*, or by, two spermatozoa; *appl.* fertilisation of an ovum.

dispermous (dispër'müs) *a.* [Gk. *dis*, twice; *sperma*, seed.] Having two seeds.

dispermy (dispër'mi) *n.* [Gk. *dis*, twice; *sperma*, seed.] The entrance of two spermatozoa into an ovum.

dispersal (dispër'säl) *n.* [L. *dispergere*, to disperse.] The actual scattering or distributing of organisms on earth's surface; transport of d'aspores.

disphotie,—dysphotie.

dispireme (dispi'rëm) *n.* [Gk. *dis*, twice; *speirema*, skein.] The stage of karyokinesis in which each daughter nucleus has given rise to a spireme.

displacement (displäs'mënt) *n.*

[O.F. *desplacier*, to displace.] An abnormal position of any part of a plant due to its shifting from its normal place of insertion.

dispore (dí'spör) *n.* [Gk. *dis*, twice; *sporos*, seed.] One of a pair of basidial spores.

disporocystid (dí'spörösís'tid) *a.* [Gk. *dis*, twice; *sporos*, seed; *kystis*, bladder.] *Appl.* oocyst of Sporozoa when two sporocysts are present.

disporous (dispö'rüs) *a.* [Gk. *dis*, twice; *sporos*, seed.] With two spores.

dissected (disëk'tëd) *a.* [L. *dissecare*, to cut open.] Having lamina cut into lobes, incisions reaching nearly to midrib; with parts displayed.

disseminule (dis-sëm'inül) *n.* [L. *disseminare*, to scatter seed.] Any spore, seed, fruit, or bud when being dispersed and able to produce a new plant; diaspore.

dissepiment (dis'sëp'imënt) *n.* [L. *dissaepire*, to separate.] The partition found in some compound ovaries; in corals, one of oblique calcareous partitions stretching from septum to septum and closing interseptal loculi below.

dissilient (disil'iënt) *a.* [L. *dissilire*, to burst asunder.] Springing open; *appl.* capsules of various plants which dehisce explosively.

dissimilation (dis'similä'shün) *n.* [L. *dissimilis*, different.] Katabolism, *q.v.*

dissoconch (dis'ököngk') *n.* [Gk. *dissos*, double; *kongche*, shell.] The shell of a veliger larva.

dissogeny (disöj'ëni) *n.* [Gk. *dissos*, double; *genos*, descent.] Condition of having two sexually mature periods in the same animal—one in larva, one in adult; also disso-gony.

distad (dis'täd) *adv.* [L. *distare*, to stand apart; *ad*, to.] Towards or at a position away from centre or from point of attachment; in a distal direction.

distal (dīs'tāl) *a.* [L. *distare*, to stand apart.] Standing far apart, distant, *appl.* bristles, etc.; *pert.* end of any structure farthest from middle line of organism or from point of attachment. *Opp.* proximal.

distalia (dīstā'liā) *n. plu.* [L. *distare*, to stand apart.] The distal or third row of carpal or of tarsal bones.

distance receptor,—a sense-organ which reacts to stimuli emanating from distant objects; an olfactory, visual, or auditory receptor; distanceceptor, distoceptor, teleceptor.

distemonous (dīstēm'ōnūs) *a.* [Gk. *dis*, twice; *stemon*, spun thread.] Having two stamens; diandrous.

distichalia (dīstikā'liā) *n. plu.* [Gk. *distichos*, with two rows.] In Crinoidea, the secondary brachialia.

distichate,—distichous.

distichous (dīs'tīkūs) *a.* [Gk. *distichos*, with two rows.] Two-ranked; *appl.* alternate leaves, so arranged that first is directly below third.

distichy,—distichous condition; arrangement in two rows.

distipharynx (dīs'tīfār'īngks) *n.* [L. *distans*, standing apart; Gk. *pharyngx*, gullet.] A short tube formed by union of epi- and hypopharynx in some insects.

distiproboscis (dīs'tīprōbōs'īs) *n.* [L. *distans*, standing apart; Gk. *proboscis*, trunk.] Distal portion of insect proboscis, part of ligula.

dististyle (dīs'tīstil) *n.* [L. *distans*, standing apart; Gk. *stylos*, pillar.] Distal part or style borne on basistyle, *q.v.*, of gonostyle in mosquitoes.

distoceptor (dīs'tōsēp'tōr) *n.* [L. *distare*, to stand apart; *recipere*, to receive.] A distance receptor, *q.v.*; teleceptor.

distractile (dīstrāk'til) *a.* [L. *distractus*, pulled asunder.] Widely separate; *appl.* usually to long-stalked anthers.

distribution (dīs'tribū'shūn) *n.* [L. *distributus*, divided.] Range of an organism or group in biogeographical divisions of globe.

disymmetrical (dīsīmēt'rīkāl) *a.* [Gk. *dis*, twice; *syn*, with; *metron*, measure.] Biradial, *q.v.*

dithecal (dīthē'kāl) *a.* [Gk. *dis*, twice; *theke*, box.] Two-celled, as anthers.

ditokous (dīt'ōkūs) *a.* [Gk. *dis*, twice; *tokos*, birth.] Producing two at a time, either eggs or young.

ditrematous (dītrēmātūs) *a.* [Gk. *dis*, twice; *trema*, opening.] With separate genital openings; with anus and genital openings separate.

ditrochous (dīt'rōkūs) *a.* [Gk. *dis*, twice; *trochos*, runner.] With a divided trochanter.

ditypism (dītī'pīzm) *n.* [Gk. *dis*, twice; *typos*, type.] Occurrence or possession of two types; sex differentiation, represented by + and —, of two apparently similar haplonts.

diuresis (dīūrē'sīs) *n.* [Gk. *dia*, through; *ouron*, urine.] Increased or excessive secretion of urine.

diurnal (dīūr'nāl) *a.* [L. *diurnus*, *pert.* day.] Opening during the day only; active in the day-time.

divaricate (dīvār'īkāt) *a.* [L. *divaricatus*, stretched apart.] Widely divergent; bifid; forked.

divaricators (dīvār'īkātōrz) *n. plu.* [L. *divaricatus*, stretched apart.] Muscles stretching from ventral valve to cardinal process, in brachiopods; muscles in avicularia.

divergency (dīvēr'jēnsi) *n.* [L. *divergere*, to bend away.] The fraction of a stem circumference, usually constant for a species, which separates two consecutive leaves in a spiral.

divergent (dīvēr'jēnt) *a.* [L. *divergere*, to bend away.] Separated from one another; *appl.* leaves.

diversity index,—of a community, the ratio between number of species and number of individuals.

diverticillate,—biverticillate.

diverticulate (dī'vērtīk'ūlāt) *a.* [L. *divertere*, to turn aside.] Having a diverticulum; having short offshoots approximately at right angles to axis, *appl.* certain hyphae;

having a projection where attached to sterigma, *appl.* certain spores.

diverticulum (dī'vērtik'ūlūm) *n.* [L. *divertere*, to turn away.] A tube or sac, blind at distal end, branching off from a canal or cavity; filament of carpogonium, giving rise to carpospore in red algae.

division (dīvī'dēd) *a.* [L. *dividere*, to divide.] With lamina cut by incisions reaching midrib; *appl.* leaves.

division centre,—centriole.

dizoic (dīzō'ik) *a.* [Gk. *dis*, twice; *zoon*, animal.] *Pert.* spore containing two sporozoites.

dizygotic (dī'zīgōt'ik) *a.* [Gk. *dis*, twice; *zygotes*, yoked.] Originating from two fertilised ova; *appl.* twins; dizygous; binovular.

Dobie's line,—Z-disc or telophragma.

docoglossate (dōk'ōglōs'āt) *a.* [Gk. *dokos*, shaft; *glossa*, tongue.] Having an elongated radula with few marginal teeth, as limpets.

dodecagynous (dōdēkāj'inūs) *a.* [Gk. *dodeka*, twelve; *gyne*, woman.] Having twelve pistils.

dodecamerous (dōdēkām'erūs) *a.* [Gk. *dodeka*, twelve; *meros*, part.] Having each whorl composed of twelve parts.

dodecandrous (dōdēkān'drūs) *a.* [Gk. *dodeka*, twelve; *aner*, man.] Having at least twelve stamens.

Dogiel's cells [*G. S. Dogiel*, Russian neurologist]. Nerve-cells within spinal ganglia, with axons branching close to cell-bodies.

dolabriform (dōlā'brīfōrm) *a.* [L. *dolabra*, mattock; *forma*, shape.] Axe-shaped; dolabrate.

dolichocephalic (dōl'ikōkēfāl'ik, -sēf-) *a.* [Gk. *dolichos*, long; *kephale*, head.] Long-headed; with cephalic index of under 75; *cf.* brachycephalic.

dolichohieric (dōl'ikōhī'ērīk) *a.* [Gk. *dolichos*, long; *hieros*, sacred.] With sacral index below 100; *cf.* platyhieric.

dolichostylous (dōl'ikōstī'lūs) *a.* [Gk. *dolichos*, long; *stylos*, pillar.]

Pert. long-styled anthers in dimorphic flowers.

dolioform (dō'liōfōrm) *a.* [L. *dolium*, wine-cask; *forma*, shape.] Barrel-shaped.

Dollo's law [L. *Dollo*, Belgian palaeontologist]. The principle that evolution is not reversible.

dome cell,—the penultimate cell of a crosier, containing two nuclei which fuse, being the first stage in development of an ascus; loop cell.

dominant (dōm'inānt) *a.* [L. *dominans*, ruling.] *Appl.* plants which by their extent determine biotic conditions in a given area; *appl.* species prevalent in a particular community, or at a given period; *appl.* character possessed by one parent which in a hybrid masks the corresponding alternative character derived from the other parent; *appl.* the parental allele manifested in the F₁ heterozygote; *opp.* recessive; *appl.* stimulated part of brain when excitation is increased by stimuli usually inducing other reflexes; *appl.* parts of body controlling less active parts.

dominator (dōm'inātor) *n.* [L. *dominator*, ruler.] A broad band of the spectrum which evokes sensation of luminosity in light-adapted eye; *cf.* modulator.

dopa (dō'pā) *n.* [*Dihydroxyphenylalanine*]. An amino-acid formed from tyrosine by action of ultraviolet rays, and oxidised by dopa-oxidase or dopase to a red precursor of melanin, as in basal layers of epidermis; C₉H₁₁O₄N.

dormancy (dōr'mānsī) *n.* [F. *dormir*, from L. *dormire*, to sleep.] A resting or quiescent condition; reduction in protoplasmic activity due to carbon dioxide concentration, *appl.* seeds; hibernation and aestivation.

dormancy callus,—callose deposited on sieve areas at the onset of winter.

dorsad (dōr'sād) *adv.* [L. *dorsum*, back; *ad*, to.] Towards back or dorsal surface, *opp.* ventrad.

dorsal (dôr'săl) *a.* [L. *dorsum*, back.] *Pert.* or lying near back, *opp.* ventral surface; *pert.* surface farthest from axis; upper surface of thallus or prothallus of ferns, etc.

dorsalis (dôrsă'lis) *n.* [L. *dorsum*, back.] The artery which supplies the back of any organ.

dorsiferous (dôrsîf'ērūs) *a.* [L. *dorsum*, back; *ferre*, to carry.] With sori on back of leaf; carrying the young on the back.

dorsifixed (dôr'sîfîk'st) *a.* [L. *dorsum*, back; *figere*, to fix.] Having filament attached to back of anther.

dorsigerous,—dorsiferous.

dorsigrade (dôr'sigräd) *a.* [L. *dorsum*, back; *gradus*, step.] Having back of digit on the ground when walking.

dorsilateral (dôr'silăt'ēräl) *a.* [L. *dorsum*, back; *latus*, side.] Of or *pert.* the back and sides; dorsal and lateral.

dorsispinal (dôr'sîspî'näl) *a.* [L. *dorsum*, back; *spina*, spine.] *Pert.* or referring to back and spine.

dorsilateral (dôr'sîvên'träl) *a.* [L. *dorsum*, back; *venter*, belly.] With upper and lower surfaces distinct; bifacial; *cf.* dorsoventral.

dorsocentral (dôr'sösên'träl) *a.* [L. *dorsum*, back; *centrum*, centre.] *Pert.* mid-dorsal surface; *pert.* aboral surface of echinoderms.

dorsolumbar (dôr'sölüm'bär) *a.* [L. *dorsum*, back; *lumbus*, loin.] *Pert.* lumbar region of back.

dorsoumbonal (dôr'söüm'bönäl) *a.* [L. *dorsum*, back; *umbo*, shieldboss.] Lying on the back near the umbo.

dorsoventral (dôr'sövên'träl) *a.* [L. *dorsum*, back; *venter*, belly.] *Pert.* structures which stretch from dorsal to ventral surface; *cf.* dorsiventral.

dorsulum (dôr'sülüm) *n.* [*Dim.* of L. *dorsum*, back.] Upper surface lying between collar and scutellum; mesonotum.

dorsum (dôr'süm) *n.* [L. *dorsum*, back.] The sulcular surface of Anthozoa; tergum or notum of insects and crustaceans; inner margin of insect wing; the back

of higher animals; upper surface, as of tongue.

dorylaner (dôr'îlänër) *n.* [Gk. *dory*, spear; *aner*, male.] An exceptionally large male ant of driver-ant group.

double fertilisation,—fusion of one of two gametes derived from division of the generative nucleus of the microspore with the oosphere nucleus, and of the other with the primary endosperm nucleus, in angiosperms.

doublure (dooblür') *n.* [F. *doublure*, lining.] The reflected margin of carapace in Trilobita and Xiphosura.

Doyère's cone ([L. *Doyère*, French physiologist]. End-plate or eminence where nerve fibre branches and enters sarcolemma.

drepaniform,—drepanoid.

drepanium (drëpăn'ium) *n.* [Gk. *drepane*, sickle.] A helicoid cyme with secondary axes developed in a plane parallel to that of main peduncle and its first branch.

drepanoid (drëp'änoid) *a.* [Gk. *drepanoeides*, sickle-shaped.] Sickle-shaped; falcate, falciform.

drift (drift) *n.* [A.S. *drifan*, to drive.] Transported, *opp.* bed-rock, soils; process of change in gene frequencies in a population of breeding individuals; Sewall Wright effect; genetico-automatic process.

dromaeognathous (dröm'ëög'näthūs) *a.* [Gk. *dramein*, to run; *gnathos*, jaw.] Having a palate in which palatines and pterygoids do not articulate, owing to intervention of vomer.

dromotropic (dröm'ötröp'îk) *a.* [Gk. *dromos*, course; *trope*, turn.] Bent in a spiral; influencing nerve conductivity.

drone (drön) *n.* [A.S. *dran*.] The male bee.

dropper (dröp'ër) *n.* [A.S. *dreópan*, to drop.] Rhizomatous downward outgrowth of a bulb, which may form a new bulb.

drop-roots,—buttress-roots.

drupaceous (droopā'shūs) *a.* [Gk. *dryppa*, olive.] *Pert.* drupe; bearing drupes; drupe-like.

drupe (droop) *n.* [Gk. *dryppa*, olive.] A superior, one-celled fruit with one or two seeds and the pericarp differentiated into a thin epicarp, a fleshy sarcocarp, and a hard endocarp, as of plum.

drupel (droop'ēl) *n.* [Gk. *dryppa*, olive.] An individual component of aggregate fruit, as of raspberry; drupelet, drupeole.

dry (dri) *a.* [A.S. *dryge*, dry.] *Appl.* achenial, capsular, and schizocarpic fruits. *Opp.* succulent.

drymophytes (dri'möfīts) *n. plu.* [Gk. *drymos*, coppice; *phyton*, plant.] Small trees, bushes, and shrubs.

duct (dükt) *n.* [L. *ducere*, to lead.] Any tube which conveys fluid or other substance; a tube formed by a series of cells which have lost their walls at the points of contact; ductus.

ductless glands,—glands which do not communicate with any organ directly by means of a duct; endocrine organs.

ductule (dük'tül) *n.* [L. *ducere*, to lead.] A minute duct; fine thread-like terminal portion of a duct.

ductus (dük'tūs) *n.* [L. *ducere*, to lead.] Duct, *q.v.*

ductus deferens,—vas deferens.

ductus ejaculatorius,—a narrow muscular tube at end of vas deferens in various invertebrates.

Dufour's gland [L. *Dufour*, French entomologist]. An alkaline gland with duct leading to terebra or sting of certain Hymenoptera.

dulosis (dü'lōsis) *n.* [Gk. *doulosis*, subjugation.] Slavery, among ants.

dumb-bell bone,—prevomer, *q.v.*

dumose (dū'mōs) *a.* [L. *dumosus*, bushy.] Shrub-like in appearance.

duodenal (dü'ödē'nāl) *a.* [L. *duodeni*, twelve each.] *Pert.* duodenum.

duodenum (dü'ödē'nūm) *n.* [L. *duodeni*, twelve each.] That portion of small intestine next to pyloric end of stomach.

duplex (dū'plēks) *a.* [L. *duplex*, two-fold.] Double; compound, *appl.* flowers; diploid; having two dominant genes, in polyploidy; consisting of two distinct structures; having two distinct parts.

duplication (dū'plikā'shūn) *n.* [L. *duplex*, double.] Chorisism, *q.v.*; a translocated chromosome fragment attached to one of normal set.

duplicature (dū'plikātūr) *n.* [L. *duplex*, double.] A circular fold near base of protrusible portion of a polyzoan polypide.

duplicident (düplis'idēnt) *a.* [L. *duplex*, double; *dens*, tooth.] With two pairs of incisors in upper jaw, one behind the other.

duplicity (düplis'iti) *n.* [L. *dupliciter*, doubly.] Condition of being two-fold; *appl.* theory that cones are the photopic, or colour, receptors, and rods the scotopic, or brightness, receptors.

duplicodentate (dū'pliködēn'tāt) *a.* [L. *duplex*, double; *dens*, tooth.] With marginal teeth on leaf bearing smaller teeth-like structures.

dura mater (dū'rā mā'tēr) *n.* [L. *dura*, hard; *mater*, mother.] The tough membrane lining the whole cerebro-spinal cavity.

dura spinalis,—the tough membrane lining the spinal canal.

dural (dū'rāl) *a.* [L. *dura*, hard.] *Pert.* dura mater; *appl.* sheath of optic nerve.

duramen (dūrā'mēn) *n.* [L. *duramen*, hardness.] The hard, darker central region of a tree-stem; the heartwood.

duvet (dūvā') *n.* [F. *duvet*, down.] Downy coating, as soft matted coating by certain fungi.

dwarf male,—small three- or four-celled plant formed from androspore of Oedogonium; a small, usually simply formed, individual in many classes of animals, either free or carried by the female.

dyad (dī'ād) *n.* [Gk. *dyas*, two.] The half of a tetrad group; a bivalent chromosome.

dynamic (dīnām'ik) *a.* [Gk. *dynamis*, power.] Producing or manifesting activity, *opp.* static; *appl.* specific dynamic action, the calorogenic action of food, increasing metabolism above basal rate.

dynamoneure (dīnām'ōnūr) *n.* [Gk. *dynamai*, to be able to do; *neuron*, nerve.] A motor neurone.

dynamoplastic (dī'nāmōplās'tik) *a.* [Gk. *dynamis*, power; *plastos*, formed.] *Appl.* active type of energid-product; *opp.* paraplasic.

dysgenic (disjēn'ik) *a.* [Gk. *dys-geneia*, low birth.] *Pert.* tending towards, or productive of, racial degeneration; kakogenic, *opp.* eugenic.

dysharmonic (dis'härmōn'ik) *a.* [Gk. *dys*, mis-; *harmonia*, a fitting together.] Changing relative size of parts with increase in body size; heterogonic.

dysmerism (dis'mērīzm) *n.* [Gk. *dys*-, mis-; *meros*, part.] An aggregate of unlike parts.

dysmerogenesis (dis'mērōjēn'ēsīs) *n.* [Gk. *dys*-, mis-; *meros*, part; *genesis*, descent.] Segmentation resulting in unlike parts.

dysphotic (dis'fōtik) *a.* [Gk. *dys*-, mis-; *phos*, light.] Dim; *appl.* zone, waters at depths between 80 and 600 metres, between euphotic and aphotic zones, *q.v.*; lower layer of photic zone.

dysploid,—aneuploid, *q.v.*

dyspnoea (dispnē'ā) *n.* [Gk. *dyspnoos*, breathl[ess].] Difficulty in breathing.

dysteleology (dis'tēlēōl'ōjī) *n.* [Gk. *dys*-, mis-; *teleos*, ended; *logos*, discourse.] Haeckel's doctrine of purposelessness in Nature; appearance of uselessness, as of certain organs or other structures; frustration of function.

dystrophic (dīstrōf'ik) *a.* [Gk. *dys*-, mis-; *trephein*, to nourish.] Wrongly or inadequately nourished; inhibiting adequate nutrition; *pert.* faulty nutrition.

Dzierzon theory [*J. Dzierzon*, Silesian apiculturist]. Belief that males of honey-bee are always produced from unfertilised eggs.

E

ear (ēr) *n.* [A.S. *ēare*.] The auditory organ; among invertebrates, the various structures supposed to have an auditory function; the specialised tufts of hair or feathers which are close to, or similar to an external ear or pinna; an ear-shaped structure; the spike of grasses, usually of cereals.

eared (ērd) *a.* [A.S. *ēare*.] Having external ears or pinnae; with tufts of feathers resembling ears; having long bristles or processes, as in grains of corn; auriculate.

ebracteate (ēbrāk'tēāt), **ebracteolate** (ēbrāk'tēōlāt) *a.* [L. *ex*, out of; *bractea*, thin plate.] Without bracts; without bracteoles.

ecad,—**occad**, *q.v.*

ecalcarate (ēkāl'kārāt) *a.* [L. *ex*, out of; *calcar*, spur.] Having no spur or spur-like process.

ecardinal (ēkār'dīnāl) *a.* [L. *ex*, out of; *cardo*, hinge.] Having no hinge; also ecardinate.

ecarinate (ēkār'ināt) *a.* [L. *ex*, out of; *carina*, keel.] Not furnished with a keel or keel-like ridge.

ecaudent (ēkō'dāt) *a.* [L. *ex*, out of; *cauda*, tail.] Without a tail.

ecblastesis (ēk'blāstē'sīs) *n.* [Gk. *ek*, out of; *blastos*, bud.] Proliferation of main axis of inflorescence.

eccritic (ēkrit'ik) *a.* [Gk. *ekkrinein*, to expel, to select.] Causing or *pert.* excretion; preferred, *appl.* temperature, etc. *n.* A substance or other agent which promotes excretion.

ecdemic (ēkdēm'ik) *a.* [Gk. *ek*, out of; *demos*, people.] Not native.

ecderon (ēk'dērōn) *n.* [Gk. *ek*, out; *deros*, skin.] The outer or epidermal layer of skin.

ecderonic (ēkdērōn'ik) *a.* [Gk. *ek*, out; *deros*, skin.] Ectodermic; epiblastic.

ecdysial (ēkdīs'īāl) *a.* [Gk. *ekdysai*, to strip.] *Pert.* ecdysis; *appl.* fluid between old and new cuticle which aids in disintegration of old cuticle.

- moulting fluid; *appl.* line along which cuticle splits in moulting; *appl.* glands, Verson's glands, secreting moulting fluid.
- ecdysis** (ĕk'dīsis) *n.* [Gk. *ekdysai*, to strip.] The act of moulting a cuticular layer or structure; *cf.* endysis.
- ecdysone** (ĕk'dīsōn) *n.* [Gk. *ekdysai*, to strip.] The moulting hormone or growth and differentiation hormone of Arthropoda.
- ece**,—oike, *q.v.*
- ecesis**,—oikesis, *q.v.*
- echard** (ĕkârd') *n.* [Gk. *echein*, to keep; *ardo*, I water.] Soil water not available for plant growth; *cf.* chresard, holard.
- echinate** (ĕk'inât) *a.* [Gk. *echinos*, hedgehog.] Furnished with spines or bristles.
- echinenone** (ĕkīn'ĕnōn) *n.* [Gk. *echinos*, sea-urchin.] A carotenoid pigment of sea-urchin gonads, a provitamin A.
- echinidium** (ĕkīnid'ium) *n.* [Gk. *echinos*, spine; *idion*, dim.] Marginal hair, with small pointed or branched outgrowths, of pileus of fungi; brush cell.
- echinochrome** (ĕkī'nōkrōm) *n.* [Gk. *echinos*, sea-urchin; *chroma*, colour.] A red-brown respiratory pigment of echinoderms; $C_{12}H_{11}O_7$.
- echinococcus** (ĕkī'nōkōk'ūs) *n.* [Gk. *echinos*, spine; *kōkkos*, berry.] A vesicular metacystode developing a number of daughter cysts, each with many heads.
- echinoid** (ĕkī'noid) *a.* [Gk. *echinos*, sea-urchin; *eidos*, form.] *Pert.* or like sea-urchins.
- echinopaedium** (ĕkī'nōpē'dium) *n.* [Gk. *echinos*, sea-urchin; *paidion*, young child.] Dipleurula, *q.v.*
- echinopluteus** (ĕkī'nōploot'ēus) *n.* [L. *echinus*, sea-urchin; *pluteus*, shed.] Larva or pluteus of echinoids, from supposed resemblance to an upturned easel.
- echinulate** (ĕkīn'ulât) *a.* [Gk. *echinos*, spine.] Having small spines; having pointed outgrowths, *appl.* bacterial cultures.
- echolocation** (ĕk'ōlōkā'shūn) *n.* [L. *echo*, echo; *locare*, to place.] Location of objects by means of echos, as of supersonic sounds emitted by animals, *e.g.* by bats.
- eclipse** (ĕklīps') *n.* [Gk. *ekleipein*, to leave incomplete.] Plumage assumed after spring moult, as in drake; period of multiplication of a bacterial virus during which it fails to be noticed in an infected cell.
- eclosion** (ĕklō'zhūn) *n.* [L. *e*, out; *clausus*, shut.] Hatching from an egg, or of an imago.
- eco**,—see also *oeco*, *oiko*—
- ecobiotic** (ĕ'kōbiōt'ik) *a.* [Gk. *oikos*, household; *biosis*, manner of life.] *Appl.* adaptation to particular mode of life within a habitat.
- ecodeme** (ĕ'kōdēm) *n.* [Gk. *oikos*, household; *demo*, people.] A deme occupying a particular ecological habitat.
- ecoid**,—oecoid, *q.v.*
- ecology** (ĕkōl'ōji) *n.* [Gk. *oikos*, household; *logos*, discourse.] That part of biology which deals with relationship between organisms and their surroundings; bionomics.
- economic density**,—of a population, the number of individuals per unit of the inhabited area, *opp.* population density in an area only partly inhabited.
- ecorticate** (ĕkôr'tikât) *a.* [L. *e*, out of; *cortex*, rind.] Without a cortex; *appl.* certain lichens.
- ecostate** (ĕkōs'tât) *a.* [L. *e*, out; *costa*, rib.] Without costae; not costate.
- ecosystem** (ĕ'kōsis'tēm) *n.* [Gk. *oikos*, household; *systema*, composite whole.] Ecological system formed by the interaction of co-acting organisms and their environment.
- ecotone** (ĕ'kōtōn) *n.* [Gk. *oikos*, household; *tonos*, brace.] A transitional species in intermediate area between two associations; the boundary line or transitional area between two communities.

ecotope (ē'kōtōp) *n.* [Gk. *oikos*, household; *topos*, place.] A particular kind of habitat within a region.

ecotype (ē'kōtip) *n.* [Gk. *oikos*, household; *typos*, pattern.] A biotype resulting from selection in a particular habitat; habitat type.

ecphoria (ēkfō'rīā) *n.* [Gk. *ekphorion*, produce.] The revival of a latent memory pattern or engram.

ecsoma (ēksō'mā) *n.* [Gk. *ek*, from out of; *soma*, body.] Retractable posterior part of body in certain trematodes.

ectad (ēk'tād) *adv.* [Gk. *ektos*, outside; L. *ad*, towards.] Towards the exterior; outwards externally. *Opp.* entad.

ectadenia (ēk'tādē'nīā) *n. plu.* [Gk. *ektos*, outside; *aden*, gland.] Ectodermal accessory genital glands in insects; *cf.* mesadenia.

ectal (ēk'tāl) *a.* [Gk. *ektos*, outside.] Outer; external; *appl.* layer or membrane on margin of exciple. *Opp.* ental.

ectamnion (ēktām'nīōn) *n.* [Gk. *ektos*, outside; *amnion*, foetal membrane.] Ectodermal thickening in proamnion, beginning of head-fold.

ectangial (ēk'tānjīāl) *a.* [Gk. *ektos*, outside; *anggeion*, vessel.] Outside a vessel; produced outside a primary sporangium; ectoangial. *Opp.* entangial.

ectendotrophic (ēk'tëndōtrōf'ik) *a.* [Gk. *ektos*, without; *endon*, within; *trophe*, nourishment.] Partly ectotrophic and partly endotrophic, *appl.* mycorrhizic fungus.

ectental line,—the line where ectoderm and endoderm meet at blastopore of a gastrula.

ectepicondylar (ēkt'ēpikōn'dilār) *a.* [Gk. *ektos*, outside; *epi*, upon; *kondylos*, knob.] *Appl.* radial foramen of humerus.

ectethmoid (ēktēth'moid) *n.* [Gk. *ektos*, outside; *ethmos*, sieve; *eidos*, form.] Lateral ethmoid bone.

ecthoraeum (ēk'thōrē'ūm) *n.* [Gk.

ekthroskein, to leap out.] The thread of a nematocyst.

ectoangial,—ectangial.

ectoascus (ēk'tōās'kūs) *n.* [Gk. *ektos*, outside; *askos*, bag.] Outer membrane of an ascus in certain Ascomycetes; *cf.* endoascus.

ectobatic (ēk'tōbāt'ik) *a.* [Gk. *ektos*, outside; *bainein*, to go.] Efferent; exodic, centrifugal. *Opp.* endobatic.

ectoblast (ēk'tōblāst) *n.* [Gk. *ektos*, outside; *blastos*, bud.] Epiblast, *q.v.*

ectobronchus (ēk'tōbrōng'kūs) *n.* [Gk. *ektos*, outside; *brongchos*, windpipe.] Lateral branch of main bronchus in birds; also ectobronchium.

ectocarpous (ēk'tōkār'pūs) *a.* [Gk. *ektos*, outside; *karpōs*, fruit.] Having gonads of ectodermal origin.

ectochondrostosis (ēk'tōkōndrōstō'sis) *n.* [Gk. *ektos*, outside; *chondros*, cartilage; *osteon*, bone.] Deposition of lime-salts beginning in perichondrium and gradually invading cartilage

ectochone (ēk'tōkōnē) *n.* [Gk. *ektos*, outside; *choane*, funnel.] A funnel-shaped chamber into which lead the ostia in certain sponges.

ectochroic (ēk'tōkrō'ik) *a.* [Gk. *ektos*, outside; *chros*, complexion.] Having pigment on the surface of a cell. *Opp.* endochroic.

ectocoelic (ēk'tōsē'lik) *a.* [Gk. *ektos*, outside; *koilos*, hollow.] *Pert.* structures situated outside the enteron of coelenterates.

ectocondyle (ēk'tōkōn'dīl) *n.* [Gk. *ektos*, outside; *kondylos*, knob.] The outer condyle of a bone.

ectocranial (ēk'tōkrā'nīāl) *a.* [Gk. *ektos*, outside; *kranion*, skull.] *Pert.* outside of skull.

ectocrine (ēk'tōkrīn) *a.* [Gk. *ektos*, outside; *krinein*, to separate.] *Appl.* and *pert.* organic substances or decomposition products in the external medium which inhibit or stimulate plant life. *n.* An ectocrine compound; environmental hormone, external diffusion hormone.

- ectocuneiform** (ĕk'tōkūnē'fōrm) *n.* [Gk. *ektos*, outside; L. *cuneus*, wedge; *forma*, shape.] A bone in distal row of tarsus; third cuneiform.
- ectocyst** (ĕk'tōsist) *n.* [Gk. *ektos*, outside; *kystis*, bladder.] Outer layer of zoecium in Polyzoa; outer covering of encysted Protozoa; epicyst.
- ectoderm** (ĕk'tōdĕrm) *n.* [Gk. *ektos*, outside; *derma*, skin.] The outer layer of a multicellular animal; the epidermis in higher mammals.
- ectoentad** (ĕk'tōĕn'tād) *a.* [Gk. *ektos*, without; *entos*, within; L. *ad*, towards.] From without inwards, *opp.* entocetad.
- ectoenzyme** (ĕk'tōĕn'zim) *n.* [Gk. *ektos*, outside; *en*, in; *zyme*, leaven.] Any extracellular enzyme; exoenzyme.
- ecto-ethmoid**,—ectethmoid, *q.v.*
- ectogenesis** (ĕk'tōĕn'ĕsis) *n.* [Gk. *ektos*, outside; *genesis*, descent.] Embryonic development outside the maternal organism; development in an artificial environment.
- ectogenous** (ĕktōj'ĕnūs) *a.* [Gk. *ektos*, outside; *genos*, birth.] Able to live an independent life; originating outside the organism.
- ectoglia** (ĕktōgl'ĭā) *n.* [Gk. *ektos*, outside; *glia*, glue.] An outer layer in central nervous system.
- ectolecithal** (ĕk'tōlĕs'ĭthāl) *a.* [Gk. *ektos*, outside; *lekithos*, yolk of egg.] Having yolk surrounding formative protoplasm.
- ectoloph** (ĕk'tōlōf) *n.* [Gk. *ektos*, outside; *lophos*, crest.] The ridge stretching from paracone to metacone in a lophodont molar.
- ectomere** (ĕk'tōmĕr) *n.* [Gk. *ektos*, outside; *meros*, part.] An epiblast cell which gives rise to ectoderm.
- ectomesogloal** (ĕk'tōmĕsōglĕ'āl, -mĕz-) *a.* [Gk. *ektos*, outside; *mesos*, middle; *glōia*, glue.] *Pert.* ectoderm and mesogloea; *appl.* muscle fibres of disc of sea-anemones.
- ectomy** (ĕk'tōmĭ). [Gk. *ek*, out; *temnein*, to cut.] Suffix signifying an excision, *e.g.* thyroidectomy, gonadectomy, etc.
- ectoneural** (ĕk'tōnū'ral) *a.* [Gk. *ektos*, outside; *neuron*, nerve.] *Appl.* system of oral ring, radial, and subepidermal nerves in echinoderms.
- ectoparasite** (ĕk'tōpār'āsīt) *n.* [Gk. *ektos*, outside; *para*, beside; *sitos*, food.] A parasite that lives on the exterior of an organism.
- ectopatagium** (ĕk'tōpātāj'ĭūm) *n.* [Gk. *ektos*, outside; L. *patagium*, border.] The part of the wing-like membrane of bats which is carried on metacarpals and phalanges.
- ectophloeodic** (ĕk'tōflĕōd'ĭk) *a.* [Gk. *ektos*, outside; *phloios*, bark.] Growing on bark or other outer surface of plants, *appl.* lichens; ectophloeodal, epiphloeodal.
- ectophyte** (ĕk'tōfīt) *n.* [Gk. *ektos*, outside; *phyton*, plant.] An external plant parasite.
- ectophytic** (ĕk'tōfīt'ĭk) *a.* [Gk. *ektos*, outside; *phyton*, plant.] *Pert.* ectophytes; ectotrophic, *q.v.*
- ectopic** (ĕktōp'ĭk) *a.* [Gk. *ek*, out of; *topos*, place.] Not in normal position; *appl.* organs, gestation, etc. *Opp.* entopic.
- ectopic pairing**,—pairing between bands located in different regions of a chromosome.
- ectoplasm** (ĕk'tōplāzm) *n.* [Gk. *ektos*, outside; *plasma*, mould.] The external layer of protoplasm in a cell, usually modified; ectosarc of protozoan cell; layer next cell-wall.
- ectoplast** (ĕk'tōplāst) *n.* [Gk. *ektos*, outside; *plastos*, formed.] The protoplasmic film or plasma-membrane just within the true wall of a cell.
- ectopterygoid** (ĕk'tōtĕr'ĭgoid, -ptĕr-) *n.* [Gk. *ektos*, outside; *pteryx*, wing; *eidos*, form.] A ventral membrane bone behind palatine and extending to quadrate; mesopterygoid; os transversum between pterygoid and maxilla in many reptiles and in some fishes; *cf.* entopterygoid.
- ectoretina** (ĕk'tōrĕt'ĭnā) *n.* [Gk. *ektos*, outside; L. *rete*, net.] Outer pigmented layer of retina.

ectosarc (ĕk'tôsârk) *n.* [Gk. *ektos*, outside ; *sarx*, flesh.] The external layer of protoplasm in a protozoon.

ectosite (ĕk'tôsīt) *n.* [Gk. *ektos*, outside ; *sitos*, food.] External parasite ; ectoparasite.

ectosome (ĕk'tôsōm) *n.* [Gk. *ektos*, outside ; *soma*, body.] The enveloping portion of a sponge containing no flagellated chambers ; a type of cell granule.

ectosphere (ĕk'tōsfēr) *n.* [Gk. *ektos*, outside ; *sphaira*, globe.] The outer zone of attraction-sphere.

ectospore (ĕk'tōspōr) *n.* [Gk. *ektos*, outside ; *sporos*, seed.] The spore formed at end of each sterigma in Basidiomycetes.

ectostosis (ĕk'tōstō'sīs) *n.* [Gk. *ektos*, outside ; *osteon*, bone.] Formation of bone in which ossification begins under the perichondrium and either surrounds or replaces the cartilage.

ectostracum (ĕktōs'trăkŭm) *n.* [Gk. *ektos*, outside ; *ostrakon*, shell.] Outer primary layer or exocuticle of exoskeleton in Acarina.

ectostroma (ĕk'tōstrō'mă) *n.* [Gk. *ektos*, outside ; *stroma*, bedding.] Fungal tissue penetrating cortical tissue of host and bearing conidia ; epistroma. *Cf.* entostroma.

ectotheca (ĕk'tōthē'kā) *n.* [Gk. *ektos*, outside ; *theke*, cup.] Outer coating of gonotheca in certain hydroids.

ectothecal,—*pert.*, ectotheca ; not enclosed by a theca.

ectotrachea (ĕk'tōtrăkē'ă) *n.* [Gk. *ektos*, outside ; *L. trachea*, wind-pipe.] An epithelial layer on outer side of insect tracheae.

ectotrophic (ĕk'tōtrōf'ik) *a.* [Gk. *ektos*, outside ; *trephēin*, to nourish.] Finding nourishment from outside ; *appl.* fungi which surround roots of host with hyphae. *Opp.* endotrophic.

ectotropic (ĕk'tōtrōp'ik) *a.* [Gk. *ektos*, outside ; *trepein*, to turn.] Tending to curve or curving outwards.

ectoturbinal (ĕk'tōtŭr'bīnăl) *n.* [Gk.

ektos, outside ; *L. turbo*, whirl.] A division of the ethmoturbinal.

ectozoon (ĕk'tōzō'ōn) *n.* [Gk. *ektos*, outside ; *zoon*, animal.] An external animal parasite ; epizoon.

ecumene (ĕk'ŭmēn'ē) *n.* [Gk. *oikoumene*, habitable world.] Any inhabited region ; the biosphere.

edaphic (ēdăf'ik) *a.* [Gk. *edaphos*, ground.] *Pert.* or influenced by conditions of soil or substratum.

edaphology (ēdăfōl'ōjī) *n.* [Gk. *edaphos*, ground ; *logos*, discourse.] Soil science ; particularly the study of the influence of soil on living organisms ; *cf.* pedology.

edaphon (ēd'ăfōn) *n.* [Gk. *edaphos*, ground.] The organisms living within the soil ; soil flora and fauna.

edeagus,—acdeagus, *q.v.*

edentate (ēdēn'tăt) *a.* [*L. ex*, without ; *dens*, tooth.] Without teeth or tooth-like projections.

edestin (ēdēs'tin) *n.* [Gk. *edestos*, eatable.] A plant globulin, main protein of sunflower and certain other seeds.

edge effect,—tendency to have greater variety and density of organisms in the boundary zone between communities or in an ecotone.

edge hair,—a cystidiform cell on gill margin in agaries.

edge species,—species living primarily or most frequently or numerously at junctions of communities ; *cf.* ecotone, hybrid swarms.

edriophthalmic (ēd'rīōthăl'mik) *a.* [Gk. *edra*, seat ; *ophthalmos*, eye.] Having sessile eyes ; *appl.* certain Crustacea.

effector (ēfēk'tōr) *n.* [*L. efficere*, to carry out.] An organ which reacts to stimulus by producing work or substance, as muscle, electric and luminous organs, glands ; a motor end-organ in muscle.

efferent (ēf'ērēnt) *a.* [*L. ex*, out ; *ferre*, to carry.] Conveying from, *appl.* vessels, lymphatics, etc. ; carrying outwards, *appl.* impulses carried outwards by motor nerves.

effigurate (ĕfig'ūrāt) *a.* [L. *ex*, out; *figurare*, to shape.] Having a definite shape or outline. *Opp.* effuse.

efflorescence (ĕflōrēs'ĕns) *n.* [L. *efflorescere*, to blossom.] Blossoming; time of flowering; bloom.

effoliation (ĕffōliā'shūn) *n.* [L. *ex*, out of; *folium*, leaf.] Shedding or removal of leaves.

effuse (ĕfūs') *a.* [L. *effusus*, poured out.] Spreading loosely, *appl.* inflorescence; spreading thinly, *appl.* bacterial cultures.

egest (ĕjĕst') *v.* [L. *egerere*, to discharge.] To throw out; to void; to excrete.

egesta (ĕjĕs'tā) *n. plu.* [L. *egestus*, discharged.] The sum-total of substances and fluids discharged from body.

egg (ĕg) *n.* [A.S. *æg*, Icel. *egg*.] The matured female germ-cell; ovule.

egg-albumin,—the chief constituent of white of egg, a mixture of glucoproteins.

egg-apparatus,—the two synergids and ovum proper, near micropyle in embryo-sac of seed plants.

egg-calyx,—dilatation of oviduct at base of ovarioles in insects.

egg-case,—a protective covering for eggs.

egg-cell,—the ovum proper apart from any layer of cells derived from it or from other cells.

egg-membrane,—the layer of tough tissue lining an egg shell.

egg-nucleus,—the female pronucleus.

egg-tooth,—a small structure on tip of upper jaw, or of beak, by which the embryo breaks its shell.

eiloid (ī'lōid) *a.* [Gk. *eilein*, to roll up; *eidos*, form.] Shaped like a coil.

ejaculate (ĕjāk'ūlāt) *n.* [L. *ejaculatus*, thrown out.] The emitted seminal fluid.

ejaculatory (ĕjāk'ūlātōri) *a.* [L. *ejaculare*, to throw out.] Throwing out; *appl.* certain ducts.

ejaculatory sac,—organ pumping ejaculate from vas deferens through

ejaculatory duct to penis, in certain insects.

ekto-,—see ecto-

elaborate (ĕlāb'orāt) *v.* [L. *elaborare*, to work out.] To change from a crude state to a state capable of assimilation; to form complex organic substances from simple materials.

elaebblast (ĕlē'ōblāst) *n.* [Gk. *elaion*, oil; *blastos*, bud.] A mass of nutrient material at posterior end of body in certain tunicates.

elaecocyte (ĕlē'ōsīt) *n.* [Gk. *elaion*, oil; *kytos*, hollow.] A cell containing fatty droplets, found in coelomic fluid of annelids.

elaebdochon (ĕlē'ōd'ōkōn) *n.* [Gk. *elaiodochos*, oil-containing.] The preen-gland or oil-gland in birds.

elaeboplast (ĕlē'ōplāst') *n.* [Gk. *elaion*, oil; *plastos*, moulded.] A plastid in a plant cell which forms or helps to form oil globules.

elaebosome,—elaeboplast.

elaebosphere (ĕlē'ōsfēr) *n.* [Gk. *elaion*, oil; *sphaira*, globe.] An oil globule in a plant cell.

elaebic fibro-cartilage,—consists of cartilage cells and a matrix pervaded by a network of yellow elastic fibres which branch and anastomose in all directions.

elaebica externa,—external layer of notochordal sheath.

elaebica interna,—the epitheliomorph layer of notochordal cells.

elaebin (ĕlās'tīn) *n.* [Gk. *elaunein*, to draw.] The scleroprotein of which elastic fibres are composed.

elaeb (ĕl'ātēr) *n.* [Gk. *elaeb*, driver.] One of the filaments in the capillitium of slime fungi; one of cells with a spiral thickening which assist in dispersing spores from capsule in liverworts; one of the spore appendages formed from episore in hoisetales; furcula or springing organ in Collembola.

elaebrophore (ĕlāt'ērōsfōr) *n.* [Gk. *elaeb*, driver; *pherein*, to bear.] Tissue bearing the elaters, in some liverworts.

electosome (ĕlēk'tōsōm) *n.* [Gk. *eklektikos*, chosen; *soma*, body.] A chondriosome regarded as a centre for elaborating and fixing chemical constituents of protoplasm.

electric organ,—modifications of muscles or groups of muscles which discharge electric energy, found in certain fishes.

electroblast (ĕlēk'trōblāst) *n.* [Gk. *elektron*, amber; *blastos*, bud.] A modified muscle fibre which gives rise to an electroplax.

electroendosmotic layer,—a hypothetical 'membrane' present between two neurons or between neuron and muscle cell.

electrolemma (ĕlēk'trōlēm'ā) *n.* [Gk. *elektron*, amber; *lemma*, skin.] Membrane surrounding an electroplax.

electrophoresis (ĕlēk'trōfōrē'sis) *n.* [Gk. *elektron*, amber; *pherein*, to bear.] Transport of substances, as of colloidal particles, resulting from differences in electrical potential.

electropism,—electrotropism, *q.v.*

electroplax (ĕlēk'trōplāks) *n.* [Gk. *elektron*, amber; *plax*, plate.] One of the constituent plates of an electric organ.

electrotaxis (ĕlēk'trōtāk'sis) *n.* [Gk. *elektron*, amber; *taxis*, arrangement.] Orientation of movement within an electric field.

electrotonic (ĕlēk'trōtōn'ik) *a.* [Gk. *elektron*, amber; *tonos*, tension.] *Pert.* a state of electric tension.

electrotonus (ĕlēktrōt'ōnūs, ĕlēktrōtōn'ūs) *n.* [Gk. *elektron*, amber; *tonos*, tension.] The modified condition of a nerve when subjected to a constant current of electricity.

electrotropism (ĕlēktrōt'rōpizm) *n.* [Gk. *elektron*, amber; *trope*, turn.] Reaction of an organism to electric stimuli; plant curvature in an electric field.

eleidin (ĕlē'idīn) *n.* [Gk. *elaia*, olive.] Substance found as small granules or droplets in stratum granulosum of epidermis.

eleo,—*see* elaeo-, elaiο-.

eleutherodactyl (ĕlū'thērōdāk'til) *a.* [Gk. *eleutheros*, free; *daktylos*, finger.] Having hind toe free.

eleutheropetalous (ĕlū'thērōpēt'-ālūs) *a.* [Gk. *eleutheros*, free; *petalon*, leaf.] Having petals or components of whorl free or separate.

eleutherophyllous (ĕlū'thērōfil'ūs) *a.* [Gk. *eleutheros*, free; *phyllon*, leaf.] Having components of perianth whorls free.

eleutherosepalous (ĕlū'thērōsēp'-ālūs) *a.* [Gk. *eleutheros*, free; *F. sépal*, sepal.] Having sepals free or separate.

elevator (ĕl'ēvātōr) *n.* [L. *elevare*, to lift up.] Any muscle which raises a part.

eligulate (ĕlīg'ūlāt) *a.* [L. *ex*, out; *ligula*, little tongue.] Having no ligule; *appl.* certain club-mosses.

elimination bodies,—nucleic acid material expelled from each chromosome during meiosis, remaining in middle of spindle and disintegrating during telophase.

ellipsoid (ĕlīp'soid) *a.* [Gk. *elleipsis*, a falling short; *eidos*, shape.] Oval. *n.* Localised thickening of coat of arterioles in spleen; Malpighian body of the spleen; filbillar outer end of inner segment of retinal rods and cones.

elliptical (ĕlīp'tikāl) *a.* [Gk. *elleipsis*, a falling short.] Oval-shaped; *appl.* leaves of about same breadth at equal distances from base and apex, which are slightly acute.

eluvial (ĕlū'viāl) *a.* [L. *ex*, out; *luere*, to wash.] *Appl.* leached upper layers or A horizon of soil.

elytriform (ĕlīt'rīfōrm) *a.* [Gk. *elytron*, sheath; *L. forma*, shape.] Shaped like an elytrum.

elytroid (ĕl'itroid) *a.* [Gk. *elytron*, sheath; *eidos*, resemblance.] Resembling an elytrum.

elytrophore (ĕl'itrōfōr) *n.* [Gk. *elytron*, covering; *pherein*, to carry.] Structure on prostomium of certain polychaetes, bearing an elytron.

elytrum (ěl'itrüm) *n.* [Gk. *elytron*, sheath.] The anterior wing of certain insects, hard and case-like; one of scales or shield-like plates found on dorsal surface of some polychaetes; also elytron.

emarginate (ēmâr'jināt) *a.* [L. *ex*, out; *marginare*, to delimit.] Having a notch at apex; having a notched margin.

embole (ēm'bölē) *n.* [Gk. *embole*, a throwing in.] Invagination; also emboly.

embolic (ěmböl'ik) *a.* [Gk. *embole*, a throwing in.] Pushing or growing in.

embolium (ěmböl'iüm) *n.* [Gk. *embolos*, wedge.] Outer or costal part of wing, or basal part of hemelytron, in certain insects.

embolomeros (ēm'bölöm'ērūs) *a.* [Gk. *embolos*, wedge; *meros*, part.] Having two vertebral rings in each segment, due to union of hypocentra with neural arch, and union of two pleurocentra below notochord.

embolus (ēm'bölūs) *n.* [Gk. *embolos*, wedge.] A projection closing the foramen of an ovule, as in *Armeria*; apical division of the palpus in certain spiders; a clot blocking a blood-vessel; horn core or os cornu of ruminants.

embryo (ēm'briō) *n.* [Gk. *embryon*, embryo.] A young organism in early stages of development.

embryo cell,—one of two cells formed from first division of fertilised egg in certain plants, developing later into embryo, the other developing into suspensor.

embryogenesis (ēm'briōjēn'ēsīs) *n.* [Gk. *embryon*, embryo; *genesis*, descent.] Origin of the embryo; embryogeny, *q.v.*

embryogeny (ěmbriōj'ēni) *n.* [Gk. *embryon*, embryo; *gennaein*, to produce.] The processes by which the embryo is formed; origin, cellular pattern, and functions of the embryo.

embryology (ěmbriōl'ōji) *n.* [Gk. *embryon*, embryo; *logos*, discourse.] That part of biology dealing with

formation and development of the embryo.

embryonal knot,—inner cell mass of blastodermic vesicle.

embryonic (ěmbriōn'ik) *a.* [Gk. *embryon*, embryo.] *Pert.* embryo.

embryonomy (ěmbriōn'ōmī) *n.* [Gk. *embryon*, embryo; *nomos*, law.] The laws of embryonic development; classification of embryos. *a.* Embryonomic.

embryophore (ēm'briōfōr) *n.* [Gk. *embryon*, embryo; *pherein*, to bear.] Ciliated mantle enclosing embryo in many tape-worms, and formed from superficial blastomeres of embryo.

embryophyta (ēm'briōfī'tā) *n. plu.* [Gk. *embryo*, embryo; *phyton*, plant.] Plants having an enclosed embryo, as those with an archegonium, or bearing seeds.

embryo-sac,—the megaspore; female gametophyte in angiosperms.

embryotectonics (ēm'briōtēktōn'iks) *n.* [Gk. *embryon*, embryo; *tektōn*, builder.] The structure or cellular pattern of the embryo.

embryotega (ēm'briōt'ēgā) *n.* [Gk. *embryon*, embryo; *tegos*, roof.] Small hardened portion of testa which marks micropyle in some seeds and separates like a little lid at period of germination.

embryotrophy (ēm'briōt'rōfī) *n.* [Gk. *embryon*, embryo; *trophe*, nourishment.] Nourishment of embryo, or means adapted therefor.

emergence (ēmēr'jēns) *n.* [L. *emergere*, to come up.] An outgrowth from subepidermal tissue; an epidermal appendage.

emersed (ēmērs't) *a.* [L. *emergere*, to come up.] Rising above surface of water; *appl.* leaves.

eminence (ēm'inēns) *n.* [L. *eminens*, eminent.] Ridge or projection on surface of bones; eminentia.

emissary (ēm'isāri) *a.* [L. *emittere*, to send out.] Coming out; name *appl.* veins passing through apertures in cranial wall and establishing connection between sinuses inside and veins outside.

emmenine (ēm'ēnīn) *n.* [Gk. *em-menos*, monthly.] A placental gonadotrophic hormone.

empennate,—pinnate.

empodium (ēmpō'diūm) *n.* [Gk. *en*, in; *pous*, foot.] A small variable median structure between claws of feet in many insects and spiders.

emulsin (ēmūl'sīn) *n.* [L. *emulgere*, to milk out.] A hydrolytic enzyme found in certain plants and some invertebrates.

enamel (ēnām'ēl) *n.* [O.F. *esmaillier*, to coat with enamel.] The hard material containing over 90 per cent. calcium and magnesium salts which forms a cap over dentine, or may form a complete coat to tooth or scale.

enamel cells,—cells which form enamel, collectively the enamel organ; adamantoblasts, ameloblasts.

enantibiosis (ēnān'tiōblō'sīs) *n.* [Gk. *enantios*, opposite; *bios*, life.] Antagonistic symbiosis.

enantiblastic (ēnān'tiōblās'tik) *a.* [Gk. *enantios*, opposite; *blastos*, bud.] Formed at end of seed opposite placenta.

enantiomorphic (ēnān'tiōmōr'fik) *a.* [Gk. *enantios*, opposite; *morphe*, form.] Similar but contraposed, as mirror image, right and left hand; deviating from normal symmetry.

enarthrosis (ēn'ārthrō'sīs) *n.* [Gk. *en*, in; *arthron*, joint.] Ball-and-socket joint.

enation (ēnā'shūn) *n.* [L. *enatus*, grown from.] A non-reproductive accessory part emerging from surface of telome; outgrowth from a previously smooth surface.

encephalisation (ēnkēf'ālīzā'shūn, -sēf'-) *n.* [Gk. *engkephalos*, brain.] Brain formation by the forward-shifting and centralising tendency of co-ordinating neurones.

encephalocoel (ēnkēf'ālōsēl, -sēf'-) *n.* [Gk. *engkephalos*, brain; *koiolos*, hollow.] Cavity within the brain; cerebral ventricle, the anterior dilatation of neurocoel.

encephalomere (ēnkēf'ālōmēr, -sēf'-) *n.* [Gk. *engkephalos*, brain; *meros*, part.] A brain segment.

encephalon (ēnkēf'ālōn, -sēf'-) *n.* [Gk. *engkephalos*, brain.] The brain.

encephalospinal (ēnkēf'ālōspī'nāl, -sēf'-) *a.* [Gk. *engkephalos*, brain; L. *spina*, spine.] Pert. brain and spinal cord.

enchondral,—endochondral, intra-cartilaginous, *q.v.*

enchylema (ēnkilē'mā) *n.* [Gk. *en*, in; *chylos*, juice.] The more fluid portion of a cell; cell sap.

encretion (ēnkēr'shūn) *n.* [Gk. *en*, within; *krinein*, L. *cernere*, to put apart.] Endocrine secretion; hormone.

encyst (ēnsīst') *v.* [Gk. *en*, in; *kystis*, bladder.] Of a cell or small organism, to surround itself with an outer coat or capsule.

encystation (ēnsistā'shūn), **encystment** (ēnsist'mēnt) *n.* [Gk. *en*, in; *kystis*, bladder.] Formation of a firm, resistant envelope or capsule.

endarch (ēnd'ārk) *a.* [Gk. *endon*, within; *arche*, beginning.] With central protoxylem, or with several surrounding a central pith.

endaspidéan (ēnd'āspīd'ēān) *a.* [Gk. *endon*, within; *aspis*, shield.] With scutes extending on inner surface of tarsus.

end-brain,—telencephalon, *q.v.*

end-bulbs,—minute cylindrical or oval bodies, consisting of capsule containing a semi-fluid core in which axis cylinder terminates either in a bulbous extremity or in a coiled plexiform mass, being end-organs in mucous and serous membranes, in skin of genitalia, and in synovial layer of certain joints.

end cell—a cell incapable of further differentiation.

end disc, **end ring**,—see ring centriole.

endemic (ēndēm'ik) *a.* [Gk. *endemos*, native.] Restricted to a certain region or part of a region.

enderon (ēn'dērōn) *n.* [Gk. *en*, in; *deros*, skin.] The inner or endodermal layer.

enderonic (ĕn'dĕrōn'ĭk) *a.* [Gk. *en*, in; *deros*, skin.] Endodermal.

endites (ĕndĭtĭs) *n. plu.* [Gk. *endon*, within.] Offshoots on mesial border of certain appendages of arthropods.

endo-,—see also *ento-*.

endoascus (ĕn'dōās'kūs) *n.* [Gk. *endon*, within; *askos*, bag.] Inner membrane of an ascus, protruding after rupture of the ectoascus, as in certain Ascomycetes.

endobasal (ĕn'dōbā'sāl) *a.* [Gk. *endon*, within; *basis*, base.] *Appl.* body, the kinetic element of central intranuclear structure; *cf.* endosome.

endobatic (ĕn'dōbāt'ĭk) *a.* [Gk. *endon*, within; *bainein*, to go.] Affrent; esodic, centripetal. *Opp.* ectobatic.

endobiotic (ĕn'dōbiōt'ĭk) *a.* [Gk. *endon*, within; *biotikos*, *pert.* life.] Living within a substratum or within another living organism. *Opp.* exobiotic.

endoblast (ĕn'dōblāst) *n.* [Gk. *endon*, within; *blastos*, bud.] Hypoblast; cocloblast and myoblast.

endocardiac (ĕn'dōkār'diāk) *a.* [Gk. *endon*, within; *kardia*, heart.] Situated within the heart; endocardial.

endocardium (ĕn'dōkār'diūm) *n.* [Gk. *endon*, within; *kardia*, heart.] The membrane which lines inner surface of heart.

endocarp (ĕn'dōkār)p) *n.* [Gk. *endon*, within; *karpōs*, fruit.] The innermost layer of pericarp, usually hard, in drupaceous fruits.

endocarpic (ĕn'dōkār'pĭk) *a.* [Gk. *endon*, within; *karpōs*, fruit.] *Pert.* endocarp; angiocarpic, *q.v.*

endocarpoid (ĕn'dōkār'poid) *a.* [Gk. *endon*, within; *karpōs*, fruit; *eidos*, form.] Having the disc-like ascocarps embedded in the thallus.

endochiton (ĕndōkĭ'tōn) *n.* [Gk. *endon*, within; *chiton*, coat.] Innermost layer of oogonial wall, as in Fucales; endochite; *cf.* exochiton, mesochiton.

endochondral (ĕn'dōkōn'drāl) *a.*

[Gk. *endon*, within; *chondros*, cartilage.] Beginning or forming inside the cartilage, *appl.* ossification; *cf.* perichondral.

endochondrostosis (ĕn'dōkōndrōstō'sis) *n.* [Gk. *endon*, within; *chondros*, cartilage; *osteon*, bone.] Ossification in cartilage from within outwards.

endochone (ĕn'dōkōnē) *n.* [Gk. *endon*, within; *choane*, funnel.] Spacious sub-cortical crypt in sponge tissue, from which arise incurrent canals.

endochorion (ĕn'dōkō'rĭōn) *n.* [Gk. *endon*, within; *chorion*, chorion.] Inner lamina of chorion of insect eggs.

endochroic (ĕn'dōkrō'ĭk) *a.* [Gk. *endon*, within; *chros*, complexion.] Having pigment within a cell or hypha. *Opp.* ectochroic.

endochrome (ĕn'dōkrōm) *n.* [Gk. *endon*, within; *chromia*, colour.] Any colouring matter or pigment within a cell.

endochrome plate,—a band of yellowish chromatophores found in protoplasmic portion of certain diatoms.

endochromidia (ĕn'dōkrōmĭd'ĭā) *n. plu.* [Gk. *endon*, within; *chroma*, colour; *idion*, *dim.*] Metachromatic corpuscles, formed from colloidal solution of metachromatin.

endochylous (ĕn'dōkĭ'lūs) *a.* [Gk. *endon*, within; *chylōs*, juice.] With water-cells within internal tissue.

endocoelar (ĕn'dōsē'lār) *a.* [Gk. *endon*, within; *koilos*, hollow.] *Pert.* inner wall of coelom, or splanchnopleure.

endocoelic (ĕn'dōsē'lik) *a.* [Gk. *endon*, within; *koilos*, hollow.] In sea-anemones, *appl.* radial area on disc covering space between two mesenteries of the same pair; *appl.* inner cycle or cycles of tentacles, *opp.* exocoelic.

endocone (ĕn'dōkōn) *n.* [Gk. *endon*, within; *konos*, cone.] A conical structure formed in certain cephalopod shells.

endocranium (ĕn'dōkrā'nīum) *n.* [Gk. *endon*, within; *kranion*, skull.] Process on inner surface of cranium of certain insects; neurocranium, *q.v.*

endocrine (ĕn'dōkrīn) *n.* [Gk. *endon*, within; *krinein*, to separate.] A ductless gland. *a.* *Appl.* or *pert.* organs of internal secretion. *Opp.* exocrine.

endocrinology (ĕn'dōkrīnōl'ōjī) *n.* [Gk. *endon*, within; *krinein*, to separate; *logos*, discourse.] Study of endocrine glands and secretions, and of hormonal substances and their effects.

endocuticula (ĕn'dōkūtīk'ulā) *n.* [Gk. *endon*, within; *L. dim.* of *cutis*, skin.] The elastic inner layer of insect cuticle; inner layer of integument in spiders.

endocycle (ĕn'dōsī'kl) *n.* [Gk. *endon*, within; *kyklos*, circle.] A layer of tissue separating internal phloem from endodermis.

endocyclic (ĕn'dōsī'klīk) *a.* [Gk. *endon*, within; *kyklos*, circle.] With the mouth remaining in axis of coil of gut, *appl.* crinoids; having an apical system with double circle of plates surrounding anus, *appl.* echinoids; *pert.* endocycle.

endocyst (ĕn'dōsīst) *n.* [Gk. *endon*, within; *kystis*, bladder.] The soft body wall in a polyzoan zooid; the membranous inner lining of a protozoan cyst; *cf.* epicyst.

endoderm (ĕn'dōdērm) *n.* [Gk. *endon*, within; *derma*, skin.] The hypoblast; the epithelium of digestive and respiratory organs, and of glands appended to digestive tract.

endoderm disc,—posterior unpaired thickening on ventral surface of blastoderm of crayfish.

endoderm lamella,—a thin sheet of endoderm stretching between adjacent radial canals, and between circular canal and enteric cavity in certain Coelenterata.

endodermis (ĕn'dōdēr'mīs) *n.* [Gk. *endon*, within; *derma*, skin.] Innermost layer of cortex in plants; layer surrounding pericycle.

endoenzyme (ĕn'dōēn'zīm) *n.* [Gk. *endon*, within; *en*, in; *zyme*, leaven.] Any intracellular enzyme.

endogamy (ĕndōg'amī) *n.* [Gk. *endon*, within; *gamos*, marriage.] Zygote formation within the cyst by reciprocal fusion of division products of daughter nuclei; self-pollination; inbreeding.

endogastric (ĕn'dōgās'trīk) *a.* [Gk. *endon*, within; *gaster*, belly.] Having curvature of body with enclosing shell towards ventral side; within the stomach.

endogenous (ĕndōj'ēnūs) *a.* [Gk. *endon*, within; *-genes*, producing.] Originating within the organism; endogenic, *opp.* exogenous; autogenic, *opp.* allogenic; developing from a deep-seated layer; *appl.* metabolism concerned with tissue waste and growth.

endogenous multiplication,—spore formation, *q.v.*

endogeny (ĕndōj'ēnī) *n.* [Gk. *endon*, within; *genos*, descent.] Development from a deep-seated layer.

endognath (ĕn'dōnāth) *n.* [Gk. *endon*, within; *gnathos*, jaw.] The inner branch of oral appendages of Crustacea.

endognathion (ĕn'dōnāth'īōn) *n.* [Gk. *endon*, within; *gnathos*, jaw.] Mesial segment of human premaxilla.

endogonidium (ĕn'dōgōnīd'itūm) *n.* [Gk. *endon*, within; *dim.* of *gone*, seed.] A gonidium formed in a gonidangium or receptacle; the colony-forming cells in such forms as Volvox.

endolabium (ĕn'dōlā'blūm) *n.* [Gk. *endon*, within; *L. labium*, lip.] A membranous lobe in interior of mouth on middle parts of front of labium.

endolaryngeal (ĕn'dōlārīn'jēāl) *a.* [Gk. *endon*, within; *larynx*, larynx.] *Pert.* or in the larynx.

endolithic (ĕn'dōlīth'īk) *a.* [Gk. *endon*, within; *lithos*, stone.] Burrowing or existing in stony substratum, as algal filaments.

endolymph (ĕn'dōlĭmf) *n.* [Gk. *endon*, within; L. *lymphā*, water.] The fluid in membranous labyrinth of ear.

endolymphangial (ĕn'dōlĭmfānjĭāl) *a.* [Gk. *endon*, within; L. *lymphā*, water; Gk. *anggeion*, vessel.] Situated in a lymphatic vessel.

endolymphatic (ĕn'dōlĭmfāt'ĭk) *a.* [Gk. *endon*, within; L. *lymphā*, water.] *Pert.* lymphatics, or to ear labyrinth ducts.

endolysin (ĕndōlĭ'sĭn) *n.* [Gk. *endon*, within; *lysis*, loosing.] Intracellular substance of leucocytes which destroys engulfed bacteria.

endolysis (ĕndōl'ĭsĭs) *n.* [Gk. *endon*, within; *lysis*, loosing.] Intracellular dissolution.

endomere (ĕn'dōmēr) *n.* [Gk. *endon*, within; *meros*, part.] A hypoblast cell which gives rise to endoderm.

endometrium (ĕn'dōmē'trĭūm) *n.* [Gk. *endon*, within; *metra*, womb.] Mucous membrane lining the uterus.

endomitosis (ĕn'dōmĭtō'sĭs) *n.* [Gk. *endon*, within; *mitos*, thread.] A form of mitosis occurring in endopolyploidy; multiplication of chromonemata or chromosomes without division of nucleus.

endomixis (ĕn'dōmĭk'sĭs) *n.* [Gk. *endon*, within; *mixis*, mixing.] A stage comparable with parthenogenesis in the reproductive rhythm of some protozoa; a type of nuclear reorganisation.

endomysium (ĕn'dōmĭz'ĭūm) *n.* [Gk. *endon*, within; *mys*, muscle.] The connective tissue binding muscle fibres.

endoneurium (ĕn'dōnū'rĭūm) *n.* [Gk. *endon*, within; *neuron*, nerve.] The delicate connective tissue holding together and supporting nerve fibres within funiculus.

endoparasite (ĕn'dōpār'āsĭt) *n.* [Gk. *endon*, within; *parasitos*, eating at another's table.] Any organism living parasitically within another.

endoperidium (ĕn'dōpērĭd'ĭūm) *n.* [Gk. *endon*, within; *peridion*, little pouch.] Inner layer of peridium.

endophragm (ĕn'dōfrām) *n.* [Gk. *endon*, within; *phragma*, fence.] A septum formed by cephalic and thoracic apodemes in Crustacea.

endophragmal (ĕn'dōfrāg'māl) *a.* [Gk. *endon*, within; *phragma*, fence.] *Pert.* the endophragm.

endophyllous (ĕn'dōfil'ūs) *a.* [Gk. *endon*, within; *phyllon*, leaf.] Sheathed by a leaf; living within a leaf, *appl.* parasites.

endophyte (ĕn'dōfĭt) *n.* [Gk. *endon*, within; *phyton*, plant.] A plant growing within another, either as parasite or otherwise.

endophytic (ĕn'dōfĭt'ĭk) *a.* [Gk. *endon*, within; *phyton*, plant.] Living in the tissues of plants.

endoplasm (ĕn'dōplāzm) *n.* [Gk. *endon*, within; *plasma*, mould.] The endosarc or inner portion of protoplasm in a cell.

endoplasmic reticulum,—ergastoplasm, kinoplasm, *q.v.*

endoplast (ĕn'dōplāst) *n.* [Gk. *endon*, within; *plastos*, moulded.] Cell-nucleus; macronucleus of certain Protista.

endoplastule (ĕn'dōplās'tūl) *n.* [Gk. *endon*, within; *plastos*, moulded.] The micronucleus of certain Protista.

endopleura (ĕn'dōploō'rā) *n.* [Gk. *endon*, within; *pleura*, side.] The inner seed-coat or tegmen.

endopleurite (ĕn'dōploō'rĭt) *n.* [Gk. *endon*, within; *pleura*, side.] The epimeral portion of an apodeme; infolding between pleurites.

endopodite (ĕn'dōpōdĭt) *n.* [Gk. *endon*, within; *pous*, foot.] The inner or mesial branch of a biramous crustacean limb, or the only part of biramous limb remaining.

endopolyploidy (ĕn'dōpōl'ĭploīdĭ) *n.* [Gk. *endon*, within; *polys*, many; *aploos*, onefold; *eidos*, form.] Polyploidy resulting from repeated doubling of chromosome number without normal mitosis.

endoral (ĕndō'rāl) *a.* [Gk. *endon*, within; L. *os*, mouth.] *Pert.* structures situated in the vestibule of certain protozoa.

endorhachis (ĕn'dōrā'kīs) *n.* [Gk. *endon*, within; *rhachis*, backbone.] A layer of connective tissue lining canal of vertebral column and cavity of skull.

endosarc (ĕn'dōsārk) *n.* [Gk. *endon*, within; *sarx*, flesh.] Endoplasm, *q.v.*

endosclerite (ĕn'dōsklē'rīt) *n.* [Gk. *endon*, within; *skleros*, hard.] Any sclerite of the endoskeleton of Arthropoda.

endoscopic (ĕn'dōskōp'ik) *a.* [Gk. *endon*, within; *skopein*, to look.] With apex directed inwards toward base of archegonium, *appl.* embryo. *Opp.* exoscopic.

endosiphuncle (ĕn'dōsī'fūngkl) *n.* [Gk. *endon*, within; L. *siphunculus*, little tube.] The tube leading from protoconch to siphuncle in certain Cephalopoda.

endosite (ĕn'dōsīt) *n.* [Gk. *endon*, within; *sitos*, food.] Internal parasite; endoparasite.

endoskeleton (ĕn'dōskēl'ētōn) *n.* [Gk. *endon*, within; *skeletos*, dried up.] Internal skeleton, *opp.* exoskeleton.

endosmosis (ĕn'dōsmō'sīs) *n.* [Gk. *endon*, within; *osmos*, impulse.] The passage inwards through a permeable or semipermeable membrane, of a less concentrated solution. *Opp.* exosmosis.

endosome (ĕn'dōsōm) *n.* [Gk. *endon*, within; *soma*, body.] Chromatinic mass near centre of a vesicular nucleus; karyosome.

endosperm (ĕn'dōspērm) *n.* [Gk. *endon*, within; *sperma*, seed.] The nutritive tissue of certain seeds; nutritive residue of female prothallus surrounding an embryo.

endospore (ĕn'dōspōr) *n.* [Gk. *endon*, within; *sporos*, seed.] Inner coat of sporocyst in some protozoa; an asexual spore; a sporangial or endogenous spore.

endosporium,—inner coat of a spore wall.

endosteal (ĕndōs'tēāl) *a.* [Gk. *endon*, within; *osteon*, bone.] *Pert.* endosteum.

endosternite (ĕn'dōstēr'nīt) *n.* [Gk. *endon*, within; L. *sternum*, sternum.] Internal skeletal plate for muscle attachment; median sternal apodeme; a free skeleton situated in prosoma between alimentary canal and nerve cord in arachnids.

endosteum (ĕndōs'tēūm) *n.* [Gk. *endon*, within; *osteon*, bone.] The internal periosteum lining the cavities of bones.

endostosis (ĕn'dōstō'sīs) *n.* [Gk. *endon*, within; *osteon*, bone.] Ossification which begins in cartilage.

endostracum (ĕndōs'trākūm) *n.* [Gk. *endon*, within; *ostrakon*, shell.] The inner layer of mollusc shell.

endostyle (ĕn'dōstīl) *n.* [Gk. *endon*, within; *stylos*, pillar.] A band of thickened epithelium on oesophageal wall of a tornaria; two ventral longitudinal folds separated by a groove in pharynx of Tunicata; a longitudinal groove lined by ciliated epithelium on ventral wall of pharynx of Amphioxus; precursor of thyroid gland.

endotergite (ĕn'dōtēr'jīt, -gīt) *n.* [Gk. *endon*, within; L. *tergum*, back.] An infolding from a tergite of insects, for muscle attachment; phragma.

endotheca (ĕn'dōthē'kā) *n.* [Gk. *endon*, within; *theke*, box.] The system of dissepiments in a coral calyx; the oval surface of Cystidea.

endothecial (ĕn'dōthē'siāl) *a.* [Gk. *endon*, within; *theke*, box.] *Pert.* endothecium; with asci in an ascocarp.

endothecium (ĕn'dōthē'siūm) *n.* [Gk. *endon*, within; *theke*, box.] The central region of an epibasal octant of oospore of liverworts and mosses; inner lining of an anther; inner dehiscing layer in ginkgo and angiosperms.

endotheliocyte (ĕn'dōthē'līōsīt) *n.* [Gk. *endon*, within; *thele*, nipple; *kytos*, hollow.] A mononuclear phagocyte derived from endothelium; endothelial phagocyte or primitive wandering cell; a histiocyte; a macrophage.

endothelium (ĕn'dōthē'lĭūm) *n.* [Gk. *endon*, within; *thele*, nipple.] A squamous epithelium which lines serous cavities, the heart, blood and lymphatic vessels.

endothermic (ĕn'dōthēr'mĭk) *a.* [Gk. *endon*, within; *therme*, heat.] Binding or utilising heat-energy, *opp.* exothermic.

endothorax (ĕn'dōthō'rākṣ) *n.* [Gk. *endon*, within; *thorax*, chest.] The apodeme system in a crustacean thorax; *cf.* entothorax.

endotoxin (ĕn'dōtōk'sĭn) *n.* [Gk. *endon*, within; *toxikon*, poison.] A toxin within bacterial protoplasm, *opp.* exotoxin.

endotrachea (ĕn'dōtrākē'ā) *n.* [Gk. *endon*, within; *L. trachia*, wind-pipe.] The innermost, chitinous coat of tracheal tubes of insects.

endotrophic (ĕn'dōtrōf'ĭk) *a.* [Gk. *endon*, within; *trophe*, nourishment.] *Appl.* space within peritrophic membrane of insects; finding nourishment from within; *appl.* fungi inhabiting root cortex of host. *Opp.* ectotrophic.

endozoic (ĕn'dōzō'ĭk) *a.* [Gk. *endon*, within; *zoon*, animal.] Living within an animal, *opp.* epizoic; *cf.* entozoic.

endozoochore (ĕn'dōzō'ōkōr) *n.* [Gk. *endon*, within; *zoon*, animal; *chora*, place.] Any spore, seed, or organism dispersed by being carried within an animal. *Opp.* epizoochore.

end-plates,—motor end-organs, the ramified expansions within the muscular fibre which form the ends of a motor nerve.

end-sac,—the sac-like vestigial portion of coelom in excretory glands of certain Crustacea.

endysis (ĕn'dĭsĭs) *n.* [Gk. *endysis*, putting on.] The development of a new coat; *cf.* ecdysis.

energesis (ĕn'ērjēs'is) *n.* [Gk. *energein*, to be active.] The process by which energy is liberated through katabolic action.

energid (ĕnēr'ĭd) *n.* [Gk. *energōs*, working; *idion*, dim.] Any living

uninucleated protoplasmic unit with or without a cell wall.

enervose (ĕnēr'vōs) *a.* [*L. ex*, without; *nervus*, sinew.] Having no veins, *appl.* certain leaves.

engram (ĕn'grām) *n.* [Gk. *en*, in; *graphein*, to write.] A character impression in the mnemonic theory of heredity; a latent memory image.

engraved (ĕngrāv'd) *a.* [*F. en*, in; *A.S. grafan*, to dig.] With irregular linear grooves on the surface.

enhalid (ĕnhāl'id) *a.* [Gk. *en*, in presence of; *hals*, salt.] Containing salt-water, *appl.* soils; growing in saltings or on loose soil in salt-water, *appl.* plants.

enphytotic (ĕnfītōt'ĭk) *a.* [Gk. *en*, in; *phyton*, plant.] Afflicting plants; *appl.* diseases restricted to a locality; *cf.* epiphytotic.

ensiform (ĕn'sifōrm) *a.* [*L. ensis*, sword; *forma*, shape.] Sword-shaped; xiphoid.

entad (ĕn'tād) *adv.* [Gk. *entos*, within; *L. ad*, towards.] Towards the interior; inwards; internally. *Opp.* ectad.

ental (ĕn'tāl) *a.* [Gk. *entos*, within.] Inner; internal. *Opp.* ectal.

entangial (ĕntān'jĭāl) *a.* [Gk. *entos*, within; *angeion*, vessel.] Within a vessel; produced inside a sporangium; entoangial. *Opp.* ectangial.

entelechy (ĕntēl'ekĭ) *n.* [Gk. *en*, in; *telos*, end; *echein*, to hold.] Vital principle or influence guiding living organisms in right direction.

entepicondylar (ĕnt'ēpĭkōn'dĭlār) *a.* [Gk. *entos*, within; *epi*, upon; *kondylos*, knob.] *Pert.* lower or condylar end of humerus; *appl.* ulnar foramen.

enteral (ĕn'tērāl) *a.* [Gk. *enteron*, gut.] Within intestine; also *appl.* the parasympathetic portion of the autonomic nervous system.

enteric (ĕntēr'ĭk) *a.* [Gk. *enteron*, gut.] *Pert.* alimentary canal.

enteroblast (ĕn'tērōblāst) *n.* [Gk. *enteron*, gut; *blastos*, bud.] The hypoblast after formation of the mesoblast.

enterocoel (ĕn'tĕrōsĕl') *n.* [Gk. *enteron*, gut; *kóilos*, hollow.] A coelom arising as a pouch-like outgrowth of archenteric cavity, or as a series of such outgrowths.

enterocrinin (ĕn'tĕrōkrī'nĭn) *n.* [Gk. *enteron*, gut; *krinein*, to separate.] A hormone of small intestine, which stimulates secretion of intestinal juice.

enteroderm (ĕn'tĕrōdĕrm) *n.* [Gk. *enteron*, gut; *derma*, skin.] Enteroblast.

enterogastrone (ĕn'tĕrōgās'trōn) *n.* [Gk. *enteron*, gut; *gaster*, stomach.] A duodenal hormone which inhibits secretion and motility of stomach.

enterokinase (ĕn'tĕrōkī'nās) *n.* [Gk. *enteron*, gut; *kinein*, to move.] Incomplete enzyme of intestinal juice which converts trypsinogen into trypsin.

enteron (ĕn'tĕrōn) *n.* [Gk. *enteron*, gut.] The alimentary tract.

enteronephric (ĕn'tĕrōnĕf'rĭk) *a.* [Gk. *enteron*, gut; *nephros*, kidney.] With nephridia opening into gut; *opp.* exonephric, *appl.* Oligochaeta.

enteroproct (ĕn'tĕrōprōkt) *n.* [Gk. *enteron*, gut; *proktos*, anus.] The opening from endodermal gut into proctodaeum.

enterostome (ĕn'tĕrōstōm) *n.* [Gk. *enteron*, gut; *stoma*, mouth.] The aboral opening of the actinopharynx, leading to coelenteron; the posterior opening of stomodaeum into endodermal gut.

enterosympathetic (ĕn'tĕrōsĭmpāth-ĕt'ĭk) *a.* [Gk. *enteron*, gut; *syn*, with; *pathos*, feeling.] *Appl.* that part of the nervous system supplying the intestine.

enterozoon (ĕn'tĕrōzō'on) *n.* [Gk. *enteron*, gut; *zoon*, animal.] Any animal parasite inhabiting the intestines.

enthetic (ĕnthĕt'ĭk) *a.* [Gk. *enthētos*, put in.] Introduced; implanted.

entire (ĕntĭr') *a.* [O.F. *entier*, untouched.] Unimpaired; with continuous margin, *appl.* leaves, bacterial colony, etc.

ento-,—see also endo-.

entoangial,—entangial, *q.v.*

entobranchiate (ĕn'tōbrāng'kiāt) *a.* [Gk. *entos*, within; *branchia*, gills.] Having internal gills.

entobronchus (ĕn'tōbrōng'kūs) *n.* [Gk. *entos*, within; *brōngchos*, windpipe.] The dorsal secondary branch of bronchus in birds; entobronchium.

entochondrite (ĕn'tōkōn'drit) *n.* [Gk. *entos*, within; *chondros*, cartilage.] Plastron or endosternum of Limulus.

entochondrostosis (ĕn'tōkōndrōstō'sis) *n.* [Gk. *entos*, within; *chondros*, cartilage; *osteon*, bone.] Ossification from within outwards.

entocodon (ĕn'tōkō'dōn) *n.* [Gk. *entos*, within; *kodon*, bell.] The lens-shaped mass of cells, in development of medusoid, which sinks below level of superficial ectoderm, and ultimately develops a cavity.

entocoel (ĕn'tōsĕl) *n.* [Gk. *entos*, within; *kóilos*, hollow.] The space enclosed by a pair of mesenteries in Anthozoa.

entocondyle (ĕn'tōkōn'dĭl) *n.* [Gk. *entos*, within; *kondylos*, knob.] Condyle on mesial surface of a bone.

entoconid (ĕn'tōkō'nĭd) *n.* [Gk. *entos*, within; *konos*, cone.] The postero-internal cusp of a lower molar.

entocuneiform (ĕn'tōkūnĕ'ĭfōrm) *n.* [Gk. *entos*, within; *kuneos*, wedge; *L. forma*, shape.] The most internal of distal tarsal bones.

entocyemate (ĕn'tōsĭĕ'māt) *a.* [Gk. *entos*, within; *kyema*, embryo.] With embryos having amnion and allantois.

entoderm,—endoderm-, *q.v.*

entoectad (ĕn'tōĕk'tād) *a.* [Gk. *entos*, within; *ektos*, without; *L. ad*, towards.] From within outwards, *opp.* ectoentad.

entogastric (ĕn'tōgās'trĭk) *a.* [Gk. *entos*, within; *gaster*, belly.] *Pert.* interior of stomach; *appl.* gastric budding in medusae.

entoglossal (ĕn'tōglōs'āl) *a.* [Gk. *entos*, within; *glossa*, tongue.] Lying in substance of tongue.

entoglossum (ĕn'tōglōs'ūm) *n.* [Gk. *entos*, within; *glossa*, tongue.] Extension of basihyal into tongue in some fishes; also glossohyal.

entomochoric (ĕnt'ōmōkō'rik) *a.* [Gk. *entomon*, insect; *chorein*, to spread.] Dispersed by insects; depending on insects for spreading spores, etc. *n.* Entomochory.

entomogenous (ĕn'tōmōj'ĕnūs) *a.* [Gk. *entomon*, insect; *genes*, born.] Growing in or on insects, as certain fungi.

entomology (ĕn'tōmōl'ōjī) *n.* [Gk. *entomon*, insect; *logos*, discourse.] That part of zoology which deals with insects.

entomophagous (ĕn'tōmōf'āgūs) *a.* [Gk. *entomon*, insect; *phagein*, to eat.] Insect-eating; insectivorous.

entomophilous (ĕn'tōmōf'ilūs) *a.* [Gk. *entomon*, insect; *philein*, to love.] Pollinated by agency of insects.

entomophyte (ĕn'tōmōfīt) *n.* [Gk. *entomon*, insect; *phyton*, plant.] Any fungus growing on or in insects.

entomo-urochrome (ĕn'tōmōū'rōkrōm) *n.* [Gk. *entomon*, insect; *ouron*, urine; *chroma*, colour.] Greenish or yellowish pigment in urine of insects.

entoneural (ĕn'tōnū'ral) *a.* [Gk. *entos*, within; *neuron*, nerve.] *Appl.* system of aboral ring and genital nerves in echinoderms.

entoparasite,—endoparasite, *q.v.*

entophyte,—endophyte, *q.v.*

entopic (ĕntōp'ik) *a.* [Gk. *en*, in; *topos*, place.] In normal position, *opp.* ectopic.

entoplasm,—endoplasm, *q.v.*

entoplastron (ĕn'tōplās'trōn) *n.* [Gk. *entos*, within; *F. plastron*, breast-plate.] The anterior median plate in chelonian plastra, often called episternum, probably homologous with interclavicle of other reptiles.

entopterygoid (ĕn'tōptēr'igoid) *n.* [Gk. *entos*, within; *pteryx*, wing; *eidōs*, form.] A dorsal membrane bone behind the palatine in some fishes; *cf.* ectopterygoid.

entoretina (ĕn'tōrēt'inā) *n.* [Gk. *entos*, within; *L. rete*, net.] Inner or neural part of retina, the retina proper.

entosphere (ĕn'tōsfēr) *n.* [Gk. *entos*, within; *sphaira*, globe.] The inner portion of attraction-sphere.

entosternite,—endosternite, *q.v.*

entosternum (ĕntōstēr'nūm) *n.* [Gk. *entos*, within; *L. sternum*, breast-bone.] Entoplastron, *q.v.*; an internal process of sternum of numerous arthropods.

entostroma (ĕn'tōstrō'mā) *n.* [Gk. *entos*, within; *stroma*, bedding.] Stroma producing perithecia in Ascomycetes; hypostroma. *Cf.* ectostroma.

entothorax (ĕn'tōthō'rāks) *n.* [Gk. *entos*, within; *thorax*, chest.] An insect apophysis or sternite.

entoturbinals (ĕn'tōtūr'binālz) *n. plu.* [Gk. *entos*, within; *L. turbo*, whorl.] A division of ethmoturbinals.

entotympanic (ĕn'tōtimpān'ik) *n.* [Gk. *entos*, within; *tympanon*, drum.] A separate tympanic element in some genera; also metatympanic.

entovarial (ĕnt'ōvā'riāl) *a.* [Gk. *entos*, within; *L. ovum*, egg.] *Pert.* canal formed in ovaries of some fishes by insinking and closure of a groove formed by covering epithelium.

entozoa (ĕn'tōzō'ā) *n. plu.* [Gk. *entos*, within; *zoon*, animal.] Internal animal parasites.

entozoic (ĕn'tōzō'ik) *a.* [Gk. *entos*, within; *zoe*, subsistence.] Living within the body or substance of another animal or plant; *pert.* entozoa.

entrochite (ĕn'trōkīt) *n.* [Gk. *en*, in; *trochos*, wheel.] The joint of fossil stem of a stalked crinoid.

enucleate (ĕnū'klēāt) *v.* [*L. e*, out of; *nucleus*, kernel.] To deprive of a nucleus, as in microdissection of cells. *a.* Lacking a nucleus.

envelope (ĕn'velōp) *n.* [*F. enveloppe*, covering.] An outer covering of an egg; any surrounding structure, *e.g.* floral envelope.

environment (ĕnvī'rōnmĕnt) *n.* [F. *environ*, about.] The sum-total of external influences acting on an organism or on part of an organism.

enzootic (ĕn'zōōt'ĭk) *a.* [Gk. *en*, in; *zoon*, animal.] Afflicting animals; *appl.* disease restricted to a locality.

enzyme (ĕn'zīm) *n.* [Gk. *en*, in, *zyme*, leaven.] A catalyst produced by living organisms and acting on one or more specific substrates; a ferment; *cf.* apo-enzyme, co-enzyme, holo-enzyme.

Eocene (ĕ'ōsĕn) *n.* [Gk. *eos*, dawn; *kainos*, recent.] Early epoch of the Tertiary period, between Palaeocene and Oligocene.

Eogaea (ĕ'ōjĕ'ă) *n.* [Gk. *eos*, dawn; *gaia*, earth.] A zoogeographical division including Africa, South America, and Australasia; *cf.* Caenogaea.

eosinophil (ĕ'ōsin'ōfil) *a.* [Gk. *eos*, dawn; *philein*, to love.] *Appl.* cells which readily stain red with eosin; oxyphil.

eosinophil, —eosinophil leucocyte.

Eozoic (ĕ'ōzō'ĭk) *a.* [Gk. *eos*, dawn; *zoe*, life.] *Appl.* Archaean or Pre-Cambrian period.

epacme (ĕpāk'mĕ) *n.* [Gk. *epi*, upon; *akme*, prime.] The stage in phylogeny of a group just previous to its highest point of development.

epactal (ĕpāk'tāl) *a.* [Gk. *epaktos*, adventitious.] Supernumerary; intercalary. *n.* A sutural or Wormian bone.

epalbate (ĕpāl'pāt) *a.* [L. *ex*, without; *palpus*, palp.] Not furnished with palpi.

epanthous (ĕpān'thūs) *a.* [Gk. *epi*, upon; *anthos*, flower.] Living on flowers; *appl.* certain fungi.

epapillate (ĕpāp'ĭlāt) *a.* [L. *ex*, without; *papilla*, nipple.] Not having papillae.

epapophysis (ĕp'āpōf'ĭsis) *n.* [Gk. *epi*, upon; *apophysis*, offshoot.] A median process arising from centre of vertebral neural arch.

eparterial (ĕp'ārtĕ'riāl) *a.* [Gk. *epi*, upon; L. *arteria*, artery.] Situated

above an artery; *appl.* branch of right bronchus.

epaulettes (ĕp'ōlēts) *n. plu.* [F. *épaule*, shoulder.] Branched or knobbed processes projecting from outer side of oral arms of many Scyphozoa; crescentic ridges of cilia in echinopluteus; tegulae of Hymenoptera.

epaxial (ĕpāk'siāl) *a.* [Gk. *epi*, upon; L. *axis*, axle.] Above the axis; dorsal; usually *appl.* axis formed by vertebral column.

epedaphic (ĕp'ĕdāf'ĭk) *a.* [Gk. *epi*, upon; *edaphos*, soil.] *Pert.*, or depending upon, climatic conditions.

epencephalon (ĕp'ĕnkĕf'ālōn, -ĕĕf-) *n.* [Gk. *epi*, upon; *engkephalos*, brain.] The cerebellum.

ependyma (ĕpĕn'dimā) *n.* [Gk. *ependyma*, outer garment.] The layer of cells lining cavities of brain and spinal cord; ependyme.

ependymal (ĕpĕn'dimāl) *a.* [Gk. *ependyma*, outer garment.] *Pert.* ependyma.

ephapse (ĕfāps') *n.* [Gk. *ephaptein*, to reach.] Region of contiguity between two axons lying side by side.

ephaptic (ĕfāp'tĭk) *a.* [Gk. *ephaptein*, to reach.] *Pert.* an ephapse; *appl.* delay, the interval between stimulation of one (pre-ephaptic) axon and response of an apposed other (post-ephaptic) axon.

epharmonic (ĕf'ārmōn'ĭk) *a.* [Gk. *epi*, towards; *harmos*, fitting.] *Pert.* epharmosis; adaptive; adapted to environment; *appl.* convergence: morphological resemblance of different species inhabiting the same environment.

epharmsis (ĕf'ārmō'sis) *n.* [Gk. *epi*, towards; *harmos*, fitting.] The process of adaptation of organisms to new environmental conditions; attainment of the state of adaptation or epharmony.

ephebic (ĕfĕ'bĭk) *a.* [Gk. *ephebos*, adult.] Adult; *pert.* stage in development or phylogeny between childhood and old-age stages.

ephemeral (ěfēm'ērāl) *n.* [Gk. *ephemerōs*, lasting for a day.] A short-lived plant or animal species.
a. Short-lived; taking place once only, *appl.* plant movements, as expanding of buds; completing life-cycle within a brief period.

ephippial (ěfip'īāl) *a.* [Gk. *ephippion*, saddle-cloth.] *Pert.* ehippium; *appl.* winter eggs, as of rotifers and daphnids.

ephippium (ěfip'īūm) *n.* [Gk. *ephippion*, saddle-cloth.] The pituitary fossa, or fossa hypophyseos of sphenoid; a thickened and indurated part of shell separating from the rest at ecdysis; a saddle-shaped modification of cuticle derived, later detached, from carapace and enclosing winter eggs, in Daphniidae.

ephyra (ěf'īrā), **ephyrula** (ěfir'ūlā) *n.* [Gk. *Ephyra*, a sea-nymph.] The small free-swimming jelly-fish stage of certain Scyphozoa, produced by strobilation of scyphistoma.

epibasal (ěp'ībā'sāl) *n.* [Gk. *epi*, upon; *basis*, base.] Upper segment of an oospore, ultimately giving rise to the shoot. *Opp.* hypobasal.

epibasidium (ěp'ībāsīd'īūm) *n.* [Gk. *epi*, upon; *basis*, base; *idion*, dim.] The part of a heterobasidium which bears sterigmata and is separated by a septum from the hypobasidium; a basidium, *q.v.*

epibenthos (ěp'ībēn'thōs) *n.* [Gk. *epi*, upon; *benthos*, depths.] Fauna and flora of sea-bottom between low-water mark and hundred fathom line.

epibiotic (ěp'ībīōt'īk) *a.* [Gk. *epibionai*, to survive.] Surviving, *appl.* endemic species that are relics of a former flora or fauna; growing on the exterior of living organisms.

epiblast (ěp'īblāst) *n.* [Gk. *epi*, upon; *blastos*, bud.] The outer layer of the gastrula; ectoblast; a rudimentary second cotyledon, as in grasses.

epiblema (ěp'īblē'mā) *n.* [Gk. *epiblema*, cover.] The outermost layer of root-tissue; piliferous layer; epiblem.

epibole (ěp'ībōlē) *n.* [Gk. *epibole*, putting on.] Growth of one part over another in embryonic stages; also epiboly.

epibolic (ěp'ībōl'īk) *a.* [Gk. *epibole*, putting on.] Growing so as to cover over; *appl.* type of gastrulation.

epibranchial (ěp'ībrāng'kiāl) *a.* [Gk. *epi*, upon; *branchia*, gills.] *Pert.* second upper element in branchial arch; efferent branchial, *appl.* vessels.

epicalyx (ěp'īkāl'īks) *n.* [Gk. *epi*, upon; *calyx*, cup.] Stipules, fused in pairs, producing an apparent outer or extra calyx; structure just below calyx produced by aggregation of bracts or bracteoles.

epicanthus (ěp'īkán'thūs) *n.* [Gk. *epi*, upon; *kantnos*, corner of eye.] A prolongation of upper eyelid over inner angle of eye; Mongolian fold.

epicardia (ěp'īkār'diā) *n.* [Gk. *epi*, upon; *kardia*, stomach.] Antrum cardiacum or abdominal portion of oesophagus.

epicardium (ěp'īkār'diūm) *n.* [Gk. *epi*, upon; *kardia*, heart.] The visceral part of pericardium; tubular prolongation of branchial sac in many ascidians, which takes part in budding.

epicarp (ěp'īkār)p) *n.* [Gk. *epi*, upon; *karpōs*, fruit.] Outer layer of the pericarp; exocarp.

epicentral (ěp'īsēn'trāl) *a.* [Gk. *epi*, upon; *kentron*, centre.] Attached to or arising from vertebral centra; *appl.* intermuscular bones.

epicerebral (ěp'īsēr'ēbrāl) *a.* [Gk. *epi*, upon; *L. cerebrum*, brain.] Situated above the brain.

epichilium (ěp'īkil'īūm) *n.* [Gk. *epi*, upon; *cheilos*, lip.] Terminal lobe of lower petal of orchid; epichile.

epichondrosis (ĕp'íkôndrô'sis) *n.* [Gk. *epi*, upon; *chondros*, cartilage.] Formation of cartilage on periosteum, as in production of antlers.

epichordal (ĕp'íkôr'dāl) *a.* [Gk. *epi*, upon; *chorde*, cord.] Upon the notochord; *appl.* vertebrae in which ventral cartilaginous portions are almost completely suppressed; *appl.* upper lobe of caudal fin in fishes.

epichroic (ĕp'ikrô'ik) *a.* [Gk. *epi*, upon; *chros*, colour.] Discolouring, as after injury.

epicoel (ĕp'isēl) *n.* [Gk. *epi*, upon; *koilos*, hollow.] Cavity of mid-brain in lower vertebrates; cerebellar cavity; a perivisceral cavity formed by invagination; also epicoele, epicoelia.

epicondylar (ĕp'ikôn'dilār) *a.* [Gk. *epi*, upon; *kondylos*, knob.] *Pert.* epicondyle.

epicondyle (ĕp'ikôn'dīl) *n.* [Gk. *epi*, upon; *kondylos*, knob.] A medial and a lateral protuberance at distal end of humerus and femur.

epicone (ĕp'ikōn) *n.* [Gk. *epi*, upon; *konos*, cone.] The part anterior to girdle in Dinoflagellata, *opp.* hypocone.

epicoracoid (ĕp'ikôr'ākoid) *a.* [Gk. *epi*, upon; *korax*, crow; *eidōs*, form.] *Pert.* an element, usually cartilaginous, at sternal end of coracoid in amphibians, reptiles, and monotremes.

epicormic (ĕp'ikôr'mīk) *a.* [Gk. *epi*, upon; *kormos*, trunk.] Growing from a dormant bud.

epicotyl (ĕp'ikôt'il) *n.* [Gk. *epi*, upon; *kotyle*, vase.] The axis of a plumule.

epicotyledonary (ĕp'ikōtilē'dōnārī) *a.* [Gk. *epi*, upon; *kotyle*, cup.] Above the cotyledons.

epicoxite (ĕp'ikók'sīt) *n.* [Gk. *epi*, upon; *L. coxa*, hip.] A small process at posterior end of toothed part of coxa of second to fifth pairs of appendages in Eurypterida.

epicranial (ĕp'ikrā'niāl) *a.* [Gk. *epi*, upon; *kranion*, skull.] *Pert.*

cranium; *appl.* aponeurosis, muscles, bones, suture.

epicranium (ĕp'ikrā'nīūm) *n.* [Gk. *epi*, upon; *kranion*, skull.] The region between and behind eyes in insect head; scalp; the structures covering the cranium.

epicranius (ĕp'ikrā'nīūs) *n.* [Gk. *epi*, upon; *kranion*, skull.] The scalp muscle, consisting of occipitalis and frontalis, connected by galea aponeurotica; occipitofrontalis.

epicrine (ĕp'ikrīn) *a.* [Gk. *epi*, upon; *krinein*, to separate.] *Appl.* glands in which secretion is voided without disintegration of cells.

epicritic (ĕp'ikrīt'ik) *a.* [Gk. *epi*, upon; *krinein*, to judge.] *Appl.* stimuli and nerve systems concerned with delicate touch and other special sensations in skin.

epictesis (ĕpik'tēsīs) *n.* [Gk. *epiktēsis*, further gain.] Capacity of a living cell to concentrate salt solutions diffusing into the cell.

epicuticula (ĕp'ikū'tik'ulā) *n.* [Gk. *epi*, upon; *L. dim. of cutis*, skin.] Lamella or membrane external to exocuticula of insects.

epicutis (ĕp'ikū'tis) *n.* [Gk. *epi*, upon; *L. cutis*, skin.] Outer layer of cutis of mushrooms, *opp.* subcutis.

epicyemate (ĕp'isīē'māt) *a.* [Gk. *epi*, upon; *kyema*, embryo.] With embryo lying on the yolk-sac.

epicyst (ĕp'isist) *n.* [Gk. *epi*, upon; *kystis*, bladder.] The external resistant cyst of an encysted protozoan; *cf.* endocyst.

epicyte (ĕp'isīt) *n.* [Gk. *epi*, upon; *kytos*, hollow.] The external layer of ectoplasm in certain protozoa.

epidemes (ĕp'idēmz) *n. plu.* [Gk. *epi*, upon; *demas*, body.] In certain insects, small pieces closely related with articulation of wings.

epidermatoid (ĕp'idēr'mātoid) *a.* [Gk. *epi*, upon; *derma*, skin; *eidōs*, form.] Resembling epidermis or epiderm; *appl.* fungal cortex made up of a single layer of cells; epidermioid.

epidermis (ěp'ídě'r'mís) *n.* [Gk. *ēpi*, upon; *derma*, skin.] The outermost protective layer of stems, roots and leaves; scarf-skin or external layer of skin, a non-vascular stratified epithelium of ectodermic origin; single layer of ectoderm in invertebrates.

epidermophyte,—dermatophyte.

epididymis (ěp'ídíd'imís) *n.* [Gk. *ēpi*, upon; *didymos*, testicle.] A mass at back of testicle composed chiefly of vasa efferentia; the coiled anterior end of Wolffian duct.

epidural (ěp'ídū'rāl) *a.* [Gk. *ēpi*, upon; *L. dura*, hard.] *Pert.* dura mater; *appl.* space between dura mater and wall of vertebral canal.

epigaeous,—epigeal.

epigamic (ěp'ígām'ík) *a.* [Gk. *ēpi*, upon; *gamos*, marriage.] Tending to attract opposite sex, *e.g.* colour displayed in courtship.

epigamous (ěp'íg'āmūs) *a.* [Gk. *ēpi*, upon; *gamos*, marriage.] Designating that stage in polychaetes in which immature forms become heteronereid, while sexual elements are ripening; epigamic, *q.v.*

epigaster (ěp'ígās'tēr) *n.* [Gk. *ēpi*, upon; *gaster*, belly.] That part of embryonic intestine which later develops into colon.

epigastric (ěp'ígās'trík) *a.* [Gk. *ēpi*, upon; *gaster*, belly.] *Pert.* anterior wall of abdomen; middle region of upper zone of artificial divisions of abdomen.

epigastrium (ěp'ígās'trīūm) *n.* [Gk. *ēpi*, upon; *gaster*, stomach.] The epigastric region; sternal portions of meso- and metathorax of insects.

epigastroid,—epipubis, *q.v.*

epigeal (ěp'íjě'āl) *a.* [Gk. *ēpi*, upon; *ge*, earth.] Living near the ground, *appl.* insects; borne above ground, *appl.* cotyledons when they form first foliage leaves; also epigeal, epigeic, epigeous.

epigenesis (ěp'íjě'n'ěsís) *n.* [Gk. *ēpi*, upon; *genesis*, descent.] Theory of generation, that embryo is an entirely new creation, not a mere unfolding of preformed structures.

epigenetics (ěp'íjě'nět'íks) *n.* [Gk. *ēpi*, upon; *genesis*, descent.] Study of the mechanisms causing phenotypic effects to be produced by the genes of a genotype.

epigenotype (ěp'íjě'n'ōtíp) *n.* [Gk. *ēpi*, upon; *genos*, descent; *typos*, image.] The concatenation of processes linking genotype and phenotype.

epigenous (ěp'íj'ěnūs) *a.* [Gk. *ēpi*, upon; *genos*, descent.] Developing or growing on a surface.

epigeous,—epigeal.

epiglottis (ěp'íglōt'ís) *n.* [Gk. *ēpi*, upon; *glotta*, tongue.] A thin lamella of fibro-cartilage between root of tongue and entrance to larynx; epistome in Polyzoa; epipharynx in Insecta.

epignathous (ěp'íg'nāthūs) *a.* [Gk. *ēpi*, upon; *gnathos*, jaw.] Having upper jaw longer than lower.

epigone,—epigonium.

epigonial (ěp'ígō'nīāl) *a.* [Gk. *ēpi*, upon; *gone*, seed.] *Appl.* sterile posterior portion of genital ridge.

epigonium (ěp'ígō'nīūm) *n.* [Gk. *ēpi*, upon; *gone*, seed.] The young sporangial sac in liverworts.

epigynal (ěp'íj'ināl) *a.* [Gk. *ēpi*, upon; *gyne*, woman.] *Pert.* epigynum.

epigynous (ěp'íj'inūs) *a.* [Gk. *ēpi*, upon; *gyne*, woman.] Having the various whorls adnate to ovary, thus apparently inserted in ovary.

epigynum (ěp'íj'inūm) *n.* [Gk. *ēpi*, upon; *gyne*, woman.] External female genitalia in Arachnida; also epigyne, epigynium.

epigyny (ěp'íj'iní) *n.* [Gk. *ēpi*, upon; *gyne*, woman.] Condition of having whorls apparently inserted in ovary.

epihyal (ěp'íhí'āl) *a.* [Gk. *ēpi*, upon; *hyooides*, T-shaped.] *Pert.* upper portion of ventral part of hyoid arch. *n.* Upper element of ventral portion, a cartilage or bone in centre of stylohyoid ligament.

epihymenium (ěp'íhímē'nīūm) *n.* [Gk. *ēpi*, upon; *hymen*, membrane.] A thin tissue of interwoven hyphae covering the hymenium, as of Basidiomycetes.

epilabrum (ēpilā'brūm) *n.* [Gk. *epi*, upon; L. *labrum*, lip.] A process at side of labrum in Myriapoda.

epilemmal (ēpilēm'āl) *a.* [Gk. *epi*, upon; *lemma*, skin.] *Appl.* sensory nerve endings on surface of sarcolemma.

epilimnion (ēp'ilim'nyōn) *n.* [Gk. *epi*, upon; *limne*, lake.] Upper water layer, above thermocline, in lakes. *Opp.* hypolimnion.

epilithic (ēpilith'ik) *a.* [Gk. *epi*, upon; *lithos*, stone.] Attached on rocks; *appl.* algae, lichens.

epimandibular (ēp'imāndib'ulār) *a.* [Gk. *epi*, upon; L. *mandibulum*, jaw.] *Pert.* a bone in lower jaw of vertebrates.

epimeletic (ēp'imēlētik) *a.* [Gk. *epimeles*, careful.] *Appl.* animal behaviour relating to the care of others.

epimembranal (ēp'imēm'brānāl) *a.* [Gk. *epi*, upon; *membrana*, skin.] Situated or formed on the surface of a membrane; *appl.* pigmentation.

epimeral (ēpimē'rāl) *a.* [Gk. *epi*, upon; *meros*, thigh.] *Pert.* epimeron.

epimere (ēp'imēr) *n.* [Gk. *epi*, upon; *meros*, part.] The dorsal muscle-plate of mesothelial wall.

epimerite (ēp'imērit) *n.* [Gk. *epi*, upon; *meros*, part.] Deciduous portion of protomerite in certain Gregarinina.

epimeron (ēpimē'rōn) *n.* [Gk. *epi*, upon; *meros*, thigh.] A portion of pleuron in insects which may be posterior or nearly as far forward as episternum; posterior pleurite of subcoxa; portion of arthropod segment between tergum and limb insertions.

epimorpha (ēp'imōr'fā) *n. plu.* [Gk. *epi*, upon; *morphe*, form.] Larvae hatched with all appendages developed; *cf.* anamorpha.

epimorphic,—maintaining the same form in successive stages of growth.

epimorphosis (ēp'imōr'fōsis) *n.* [Gk. *epi*, upon; *morphosis*, shaping.] That type of regeneration in which

proliferation of new material precedes development of new part.

epimysium (ēp'imīz'ium) *n.* [Gk. *epi*, upon; *mys*, muscle.] The sheath of arcolar tissue which invests the entire muscle; *cf.* perimysium.

epinasty (ēp'ināsti) *n.* [Gk. *epi*, upon; *nastos*, close-pressed.] The more rapid growth of upper surface of a dorso-ventral organ, *e.g.* a leaf, thus causing unrolling or downward curvature.

epinephrine (ēp'inēf'rēn) *n.* [Gk. *epi*, upon; *nephros*, kidney.] Adrenaline; adrenin.

epinephros (ēp'inēf'rōs) *n.* [Gk. *epi*, upon; *nephros*, kidney.] The suprarenal or adrenal body.

epineural (ēp'inūrāl) *a.* [Gk. *epi*, upon; *neuron*, nerve.] Arising from vertebral neural arch; *pert.* canal external to radial nerve in certain echinoderms; *appl.* sinus between embryo and yolk, beginning of body cavity in insects.

epineurium (ēp'inūr'ium) *n.* [Gk. *epi*, upon; *neuron*, nerve.] The external sheath of a nerve cord.

epinotum (ēp'inō'tūm) *n.* [Gk. *epi*, upon; *noton*, back.] Propodeon, *q.v.*

epiopticon (ēp'iōp'tikōn) *n.* [Gk. *epi*, upon; *opsis*, sight.] The middle zone of optic lobes of insects.

epiostracum (ēp'iōs'trākūm) *n.* [Gk. *epi*, upon; *ostrakon*, shell.] Thin cuticle or epicuticle covering exocuticle or ectostracum in Acarina.

epiotic (ēp'iōt'ik) *a.* [Gk. *epi*, upon; *ous*, the ear.] *Pert.* upper element of bony capsule of ear; *appl.* centre of ossification of mastoid process.

epiparasite (ēp'ipār'āsīt) *n.* [Gk. *epi*, upon; *parasitos*, eating at another's table.] Ectoparasite, *q.v.*

epipelagic (ēp'ipēlāj'ik) *a.* [Gk. *epi*, upon; *pelagos*, sea.] *Pert.* deep-sea water between surface and bathypelagic zone.

epiperidium,—exoperidium, *q.v.*

epipetalous (ēpī'pētālūs) *a.* [Gk. *epi*, upon; *petalon*, leaf.] Having stamens inserted on petals.

epipetreous (ēp'ipēt'rēūs) *a.* [Gk. *epi*, upon; *petraios*, *pert.* rock.] Growing on rocks.

epipharyngeal (ēp'ifārīn'jēāl) *a.* [Gk. *epi*, upon; *pharyngx*, throat.] *Pert.* upper or dorsal aspect of pharynx.

epipharynx (ēp'ifār'ingks) *n.* [Gk. *epi*, upon; *pharyngx*, throat.] A projection on roof of mouth cavity of certain insects; membranous lining of labrum and clypeus drawn out with labrum to form a piercing organ, as in Diptera; lingua.

epiphloeodal (ēpīflē'ōdāl) *a.* [Gk. *epi*, upon; *phloios*, bark.] *Pert.* epiphloem; growing on outer bark; *appl.* lichens; epiphloeodic, ectophloeodic.

epiphloem (ēpīflō'ēm) *n.* [Gk. *epi*, upon; *phloios*, bark.] Outer bark.

epiphragm (ēp'ifrām) *n.* [Gk. *epi-phragma*, covering.] A layer of hardened mucous matter, or a calcareous plate, closing the opening of certain gastropod shells; membrane which closes the capsule in certain mosses; a closing membrane in sporophores of certain fungi.

epiphyll (ēp'ifil) *n.* [Gk. *epi*, upon; *phyllon*, leaf.] A plant which grows on leaves, *e.g.* various lichens.

epiphyllous (ēp'ifil'ūs) *a.* [Gk. *epi*, upon; *phyllon*, leaf.] Growing on leaves; united to perianth, *appl.* stamens.

epiphysial (ēp'ifiz'īāl) *a.* [Gk. *epi*, upon; *phyein*, to grow.] *Pert.* or similar to the epiphysis; epiphyseal.

epiphysis (ēpīf'isīs) *n.* [Gk. *epi*, upon; *phyein*, to grow.] Any part or process of a bone which is formed from a separate centre of ossification and later fuses with the bone; pineal body; pineal and parapineal organs; stout bar firmly fused to alveolus of each jaw and articulating with rotulae in sea-urchins; certain processes on tibia of insects; caruncle near hilum of seed.

epiphyte (ēp'ifit) *n.* [Gk. *epi*, upon; *phyton*, plant.] Plant which lives on surface of other plants.

epiphytic (ēp'ifit'ik) *a.* [Gk. *epi*, upon; *phyton*, plant.] Living on, or attached to, surface of a plant, *opp.* endophytic; *pert.* or similar to an epiphyte.

epiphytotic (ēp'ifitōt'ik) *a.* [Gk. *epi*, upon; *phyton*, plant.] *Pert.* disease epidemic in plants.

epiplankton (ēp'iplāng'ktōn) *n.* [Gk. *epi*, upon; *planktos*, wandering.] That portion of plankton from surface to one hundred fathoms.

epiplasm (ēp'iplāzm) *n.* [Gk. *epi*, upon; *plasma*, mould.] Cytoplasm of a brood mother-cell remaining unused in brood formation; cytoplasm of ascus remaining after spore formation.

epiplastron (ēp'iplās'trōn) *n.* [Gk. *epi*, upon; F. *plastron*, breast-plate.] One of anterior pair of bony plates in plastron of Chelonia.

epiplectotrichoderm (ēp'iplēk'tō-trik'ōdērm) *n.* [Gk. *epi*, upon; *plektos*, plaited; *thrix*, hair; *derma*, skin.] An epitrichoderm, *q.v.*, of interwoven hyphae.

epipleura (ēp'iploo'rā) *n.* [Gk. *epi*, upon; *pleura*, rib.] Epithecral part of cingulum in diatoms; one of rib-like structures in teleosts which are not preformed in cartilage; an uncinatate process in birds; the turned down outer margin of elytra of certain beetles.

epiploic (ēpīplō'ik) *a.* [Gk. *epiploon*, caul of entrails.] *Pert.* omentum.

epiploic foramen,—opening between bursa omentalis and large sac of peritoneum; foramen of Winslow.

epiploon (ēpīplōōn) *n.* [Gk. *epiploon*, caul of entrails.] Great omentum; insect adipose tissue.

epipodial (ēp'ipō'diāl) *a.* [Gk. *epi*, upon; *pous*, foot.] *Pert.* epipodium.

epipodite (ēp'ipōdīt) *n.* [Gk. *epi*, upon; *pous*, foot.] A process arising from basal joint of crustacean limb and usually extending into gill chamber.

epipodium (ěp'ípō'díum) *n.* [Gk. *epi*, upon; *pous*, foot.] The leaf-blade or lamina; embryonic leaf-lamina; ridge, fold, or lobe along edge of foot of Gastropoda; raised ring on an ambulacral plate in Echinoidea.

epipreocracoid (ěp'íprēkōr'ākoid) *n.* [Gk. *epi*, upon; L. *prae*, before; Gk. *korax*, crow; *eidos*, form.] A small cartilage at ventral end of preocracoid in pectoral girdle in some Chelonia.

epiproct (ěp'íprōkt) *n.* [Gk. *epi*, upon; *proktos*, anus.] A supra-anal plate representing tergum of tenth or eleventh segment in some insects.

epipteric (ěp'íptēr'ík) *a.* [Gk. *epi*, upon; *pteron*, wing.] Winged at tip, *appl.* certain seeds; epipterous; *pert.* or shaped like, or placed above wing; *appl.* a small skull bone between parietal and sphenoidal ala. *n.* Epipteric bone.

epipterygoid (ěp'ítēr'ígoid) *n.* [Gk. *epi*, upon; *pteryx*, wing.] A small bone extending nearly vertically downwards from prootic to pterygoid; also columella cranii.

epipubic (ěp'ípū'bík) *a.* [Gk. *epi*, upon; L. *pubes*, adult.] *Pert.* or borne upon pubis; *appl.* certain cartilages or bones principally in marsupials; *appl.* anterior median process of ischiopubic plate.

epipubis (ěp'ípū'bís) *n.* [Gk. *epi*, upon; L. *pubes*, adult.] Unpaired cartilage or bone borne anteriorly on pubis; also epigastroid.

epirhizous (ěp'írí'zūs) *a.* [Gk. *epi*, upon; *rhiza*, root.] Growing upon a root.

epirrhyza (ěpírí'sā) *n. plu.* [Gk. *epirrhein*, to flow into.] Inhalant canals in sponges, *opp.* aporrhysa.

episclera (ěp'ísklē'rā) *n.* [Gk. *epi*, upon; *skleros*, hard.] Connective tissue between sclera and conjunctiva.

episematic (ěp'ísēmāt'ík) *a.* [Gk. *epi*, upon; *sema*, sign.] Aiding in recognition; *appl.* coloration, markings.

episeme (ěp'ísēm) *n.* [Gk. *epi*,

upon; *sema*, sign.] A marking or colour aiding in recognition.

episepalous (ěp'ísěp'ālūs) *a.* [Gk. *epi*, upon; F. *sépale*, sepal.] Adnate to sepals.

episkeletal (ěp'ískēl'ětāl) *a.* [Gk. *epi*, upon; *skeletalos*, hard.] Outside the endoskeleton.

episperm (ěp'íspěrm) *n.* [Gk. *epi*, upon; *sperma*, seed.] The outer coat of seed; testa of spermoderm.

episporangium (ěp'íspōrán'jūm) *n.* [Gk. *epi*, upon; *sporos*, seed; *angeion*, vessel.] An indusium.

epispor (ěp'íspōr) *n.* [Gk. *epi*, upon; *sporos*, seed.] The outer layer of a spore wall; episporium; perispore, *q.v.*; perinium, *q.v.*

epistasis (ěp'ís'tāsís) *n.* [Gk. *epi*, upon; *stasis*, standing.] Dominance of a gene over another, non-allelomorphic gene; epistasy.

epistasy (ěp'ís'tāsí) *n.* [Gk. *epi*, upon; *stasis*, standing.] Greater degree of modification manifested by one of two related types in phylogenesis; masking of one hereditary character by another; epistasis, *q.v.*

epistatic (ěp'ístāt'ík) *a.* [Gk. *epi-states*, master.] *Appl.* the predominating of two characters whose genes are not allelomorphs; exhibiting or *pert.* the condition of epistasis; *cf.* hypostatic.

epistellar (ěp'ístěl'ār) *a.* [Gk. *epi*, upon; L. *stella*, stare.] Above the stellate ganglion; *appl.* neurosecretory body regulating muscular tonicity, as in Cephalopoda.

episternalia (ěp'ístěrnā'líā) *n. plu.* [Gk. *epi*, upon; *sternon*, breast-bone.] Two small elements preformed in cartilage frequently intervening in development between clavicles and sternum, and ultimately fusing with sternum.

episternite (ěp'ístěrn'ít) *n.* [Gk. *epi*, upon; *sternon*, breast-bone.] One of portions of an ovipositor formed from side portions of a somite.

episternum (ěp'ístěrnūm) *n.* [Gk. *epi*, upon; L. *sternum*, breast-bone.] The interclavicle; also applied to

an anterior cartilaginous element of sternum; a lateral division of an arthropod somite, above sternum and in front of epimeron; anterior pleurite of subcoxa.

epistoma,—epistome.

epistome (ēp'istōm) *n.* [Gk. *epi*, upon; *stoma*, mouth.] A small lobe overhanging mouth in Polyzoa and containing a part of body cavity; the region between antenna and mouth in Crustacea; anterior median plate on reflected margin of carapace of certain trilobites; subcheliceral plate in certain ticks; that portion of insect head immediately behind labrum; portion of rostrum of certain Diptera.

epistroma (ēp'istrō'mā) *n.* [Gk. *epi*, upon; *stroma*, bedding.] Ectostroma, *q.v.* Cf. hypostroma.

epistrophe (ēp'istrō'fē) *n.* [Gk. *epi-strophe*, moving about.] The position assumed by chloroplasts along outer and inner cell-walls when exposed to diffuse light.

epistropheus (ēp'istrō'fēūs) *n.* [Gk. *epistrophe*, turning.] The second cervical or axis vertebra.

epithalamus (ēp'ithāl'āmūs) *n.* [Gk. *epi*, upon; *thalamos*, chamber.] Part of thalamencephalon, comprising trigonum habenulae, pineal body, and posterior commissure.

epithalline (ēp'ithāl'in) *a.* [Gk. *epi*, upon; *thallos*, branch.] Growing upon the thallus.

epithallus (ēp'ithāl'ūs) *n.* [Gk. *epi*, upon; *thallos*, branch.] Cortical layer of hyphae covering gonidia of lichens.

epitheca (ēp'ithē'kā) *n.* [Gk. *epi*, upon; *theke*, cup.] An external layer surrounding lower part of theca in many corals; theca covering epicone in Dinoflagellata; older half of frustule in diatoms.

epithecium (ēp'ithē'siūm) *n.* [Gk. *epi*, upon; *theke*, cup.] The surface of spore-cases in lichens and fungi.

epithelial (ēp'ithē'liāl) *a.* [Gk. *epi*, upon; *thele*, nipple.] *Pert.* epithelium; epitheliomorph.

epithelial bodies,—the parathyroids.

epitheliofibrillae (ēp'ithē'liōfibril'ē) *n. plu.* [Gk. *epi*, upon; *thele*, nipple; L. *fibrilla*, small fibre.] Parallel or reticular fibrillae of columnar epithelium analogous to myofibrillae.

epitheliomorph (ēp'ithē'liōmōrf) *a.* [Gk. *epi*, upon; *thele*, nipple; *morphe*, form.] Resembling epithelium; epithelioid; *appl.* layer of cells, or elastica interna, which secretes notochordal sheath.

epithelium (ēp'ithē'liūm) *n.* [Gk. *epi*, upon; *thele*, nipple.] Any cellular tissue covering a free surface or lining a tube or cavity.

epithem (ēp'ithēm) *n.* [Gk. *epi*, upon; *tithenai*, to put.] A plant tissue of specialised cells and intercellular spaces forming a hydathode; the secretory layer in nectaries; an excrescence on the beak of birds; also epithema and epitheme.

epitokous (ēp'itōkūs) *a.* [Gk. *epi*, upon; *tokos*, birth.] Designating the heteronereid stage of certain polychaetes.

epitrematic (ēp'itrēmāt'ik) *a.* [Gk. *epi*, upon; *trema*, pore.] *Appl.* upper lateral bar of branchial basket of lamprey.

epitrichial (ēp'itrik'iāl) *a.* [Gk. *epi*, upon; *thrix*, hair.] *Pert.* or resembling the epitrichium.

epitrichium (ēp'itrik'iūm) *n.* [Gk. *epi*, upon; *thrix*, hair.] An outer layer of foetal epidermis of many mammals, usually shed before birth.

epitrichoderm (ēp'itrik'ōdērm) *n.* [Gk. *epi*, upon; *thrix*, hair; *derma*, skin.] A trichoderm, *q.v.*, when the coating of a pileus is two-layered. Cf. epiplelectotrichoderm.

epitrochlea (ēp'itrōk'lēā) *n.* [Gk. *epi*, upon; L. *trochlea*, Gk. *trochilia*, pulley.] Inner condyle at distal end of humerus.

epitympanic (ēp'itimpān'ik) *a.* [Gk. *epi*, upon; L. *tympanum*, kettle-drum.] Situated above tympanum.

epityphlon (ĕp'itíf'lŏn) *n.* [Gk. *epi*, upon; *typhlon*, caecum.] The vermiform appendix.

epivalve (ĕp'ivălv) *n.* [Gk. *epi*, upon; *L. valva*, fold.] Valve of epitheca in diatoms; the apical part of envelope in certain *Dino-flagellata*; *epicone*.

epixylous (ĕpizí'lŭs, ĕpik'silŭs) *a.* [Gk. *epi*, upon; *xylon*, wood.] Growing upon wood.

epizoic (ĕp'izŏ'ík) *a.* [Gk. *epi*, upon; *zoon*, animal.] Living on or attached to the body of an animal.

epizoochore (ĕp'izŏ'ŏkŏr) *n.* [Gk. *epi* upon; *zoon*, animal; *chora*, place.] Any spore, seed, or organism dispersed by being carried upon the body of an animal. *Opp.* endozoochore.

epizoon (ĕp'izŏ'ŏn) *n.* [Gk. *epi*, upon; *zoon*, animal.] An animal living on another; an external parasite; ectozoon.

epizootic (ĕp'izŏŏt'ík) *a.* [Gk. *epi*, upon; *zoon*, animal.] Common among animals. *n.* Disease affecting a large number of animals simultaneously, corresponding to epidemic in man.

epizygial (ĕpiz'igăl) *n.* [Gk. *epi*, upon; *zygon*, yoke.] The upper ossicle in a syzygial pair of brachials or columnars in crinoids.

eplicate (ĕ'plikăt) *a.* [L. *e*, out of; *plicatus*, folded.] Not folded; not plaited.

eponychium (ĕp'ŏnik'ium) *n.* [Gk. *epi*, upon; *onyx*, nail.] The thin cuticular fold which overlaps lunula of nail; dorsal portion of a neonychium.

eponym (ĕp'ŏnim) *n.* [Gk. *epi*, by; *onyma*, name.] Name of a person used in designation of an entity, as of a species, organ, law, disease, etc.

epoophoron (ĕp'ŏŏf'ŏrŏn) *n.* [Gk. *epi*, upon; *oon*, egg; *pherein*, to bear.] A rudimentary organ (homologous with epididymis), remains of Wolffian body of embryo, lying in mesosalpinx between ovary and uterine tube; organ of Rosenmüller.

epulosis (ĕpŭlŏ'sis) *n.* [Gk. *epi*, over; *oule*, scar.] Formation of a scar; cicatrisation.

equal (ĕ'kwăl) *a.* [L. *aequalis*, equal.] Having the portions of the lamina equally developed on the two sides of midrib; *appl.* leaves.

equation division,—homeotypic or second division in meiosis.

equatorial furrow,—division round equator of segmenting egg.

equatorial plate,—group of chromosomes lying at equator of spindle during mitosis; locus of new cell-wall after cell-division.

equibiradiate (ĕ'kwibiră'diăt) *a.* [L. *aequus*, equal; *bis*, twice; *radius*, ray.] With two equal rays.

equicellular (ĕ'kwisĕl'ŭlăr) *a.* [L. *aequus*, equal; *cellula*, cell.] Composed of equal cells.

equifacial (ĕ'kwifă'shăl) *a.* [L. *aequus*, equal; *facies*, face.] Having equivalent surfaces or sides, as vertical leaves.

equilateral (ĕ'kwilăt'ĕrăl) *a.* [L. *aequus*, equal; *latus*, side.] Having the sides equal; *appl.* shells symmetrical about a transverse line drawn through umbo.

equilenin (ĕkwilĕ'nin) *n.* [L. *equus*, horse.] An oestrogenic hormone present in urine of the pregnant mare; $C_{18}H_{18}O_2$.

equiline (ĕk'wilĕn) *n.* [L. *equus*, horse.] An oestrogenic hormone, more physiologically active than equilenin, occurring in urine of the pregnant mare; $C_{18}H_{20}O_2$.

equipotent (ĕkwip'ŏtĕnt) *a.* [L. *aequus*, equal; *potens*, powerful.] Totipotent, *q.v.*

equitant (ĕk'witănt) *a.* [L. *equitare*, to ride.] Overlapping saddlewise, as leaves in leaf-bud.

equivalve (ĕ'kwivălv) *a.* [L. *aequus*, equal; *valva*, valve.] Having two halves of a shell alike in form and size.

erect (ĕrĕkt') *a.* [L. *erigere*, to raise up.] Directed towards summit of ovary, *appl.* ovule; not decumbent.

erectile (ĕrĕk'til) *a.* [L. *erigere*, to raise up.] Capable of being erected.

erectile tissue,—a tissue capable of being made rigid by distention of blood-vessels within it.

erection (ērēk'shūn) *n.* [L. *erigere*, to raise up.] The state of a part which has become swollen and distended through accumulation of blood in erectile tissue.

erector (ērēk'tōr) *n.* [L. *erigere*, to raise up.] A muscle which raises up an organ or part.

ereidism (ērēi'dēzm) *n.* [Gk. *ereidein*, to support; *desma*, bond.] An epithelial intracellular fibre.

Eremian (ērē'miān) *a.* [Gk. *eremia*, desert.] *Appl.* or *pert.* part of the Palaearctic region including deserts of North Africa and Asia.

eremic (ērē'mīk) *a.* [Gk. *eremos*, desert.] *Pert.*, or living in, deserts.

eremobitic (ērēmō'bik) *a.* [Gk. *eremos*, solitude; *bios*, life.] Growing or living in isolation; having a solitary existence.

eremochaetous (ērēmōkē'tūs) *a.* [Gk. *eremos*, lonely; *chaite*, hair.] Having no regularly arranged system of bristles; *appl.* flies.

eremophyte (ērēmōfit') *n.* [Gk. *eremos*, solitude; *phyton*, plant.] A desert plant.

erepsin (ērēp'sīn) *n.* [L. *eripere*, to set free.] A proteolytic enzyme of intestinal juice and body tissues.

ergaloid (ēr'gāloid) *a.* [Gk. *ergon*, work; *eidos*, form.] Having the adults sexually capable though wingless.

ergastic (ērgās'tik) *a.* [Gk. *ergastikos*, fit for working.] *Pert.* metaplastism; *appl.* lifeless cell-inclusions, as fat, starch, etc.

ergastoplasm (ērgās'tōplāzm) *n.* [Gk. *ergazesthai*, to work; *plasma*, mould.] Archoplasm; kinoplasm.

ergastoplasmic (ērgās'tōplāz'mik) *a.* [Gk. *ergazesthai*, to work; *plasma*, mould.] *Appl.* fibrillae of gland cells which may induce production of secretory granules.

ergatandromorph (ērgātān'drōmōrf) *n.* [Gk. *ergates*, worker; *aner*, male; *morphe*, form.] An ant or

other social insect in which worker and male characters are blended.

ergatandrous (ērgātān'drūs) *a.* [Gk. *ergates*, worker; *aner*, man.] Having worker-like males.

ergataner (ērgāt'ānēr) *n.* [Gk. *ergates*, worker; *aner*, male.] A male ant resembling a worker; an ergatoid or ergatomorphic male.

ergate (ēr'gāt) *n.* [Gk. *ergates*, worker.] A worker-ant; ergates.

ergatogyne (ērgāt'ōj'īnē) *n.* [Gk. *ergates*, worker; *gyne*, female.] A female ant resembling a worker; an ergatoid or ergatomorphic female.

ergatogynous (ērgātōj'īnūs) *a.* [Gk. *ergates*, worker; *gyne*, woman.] Having worker-like females.

ergatoid (ērgāt'oid) *a.* [Gk. *ergates*, worker; *eidos*, form.] Resembling a worker, *appl.* ants; ergatomorphic.

ergones (ēr'gōnz) *n. plu.* [Gk. *ergon*, work.] Organic substances of which small amounts suffice for activation or regulation of a physiological process, as enzymes, hormones, and vitamins; also ergines.

ergonomy (ēr'gōn'ōmī) *n.* [Gk. *ergon*, work; *nomos*, law.] The differentiation of functions; physiological differentiation associated with morphological specialisation.

ergoplasm,—kinoplasm.

ergosterol,—a sterol occurring in plants and animals, with photochemical reaction products leading to formation of its isomer vitamin D₂; C₂₈H₄₄O.

ergot (ēr'gōt) *n.* [O.F. *argot*, spur.] A small bare patch found on limbs of horse-tribe, representing last remnant of naked palm of hand and sole of foot; condition of ovary of grasses produced by a fungus; rye smut; sclerotium of Claviceps, yielding several alkaloids, e.g. ergotoxine and ergometrine, which stimulate uterine muscle.

erichthoidina (ērīk'thoid'īnā) *n.* [Gk. *erechthein*, to break; *eidos*, form.] Larval stage of Stomatopoda comparable with zoaea.

erichthus (érík'thūs) *n.* [Gk. *erechthein*, to break.] Larval stage of Stomatopoda, comparable with pseudoscolecids.

erineum (érin'ēüm) *n.* [Gk. *erineos*, woollen.] An outgrowth of abnormal hairs produced on leaves by certain gall-mites.

ericomous (ëriök'ömüs) *a.* [Gk. *erion*, wool; *kome*, hair.] Having woolly hair; fleece-haired.

eriophyllous (ër'ïöfil'üs) *a.* [Gk. *erion*, wool; *phyllon*, leaf.] Having leaves with a cottony appearance.

erose (ërös') *a.* [L. *erodere*, to wear away.] Having margin irregularly notched; *appl.* leaf, bacterial colony.

erosion (ërözhün) *n.* [L. *erodere*, to wear away.] Decay which usually starts at apex of many gastropod shells.

erostrate (ërös'trät) *a.* [L. *ex*, without; *rostrum*, beak.] Having no beak; *appl.* anthers.

ersaeome (ër'sēöm) *n.* [Gk. *erse*, young.] The free monogastric generation of Siphonophora.

eruciform (ëroo'siförm) *a.* [L. *eruca*, caterpillar; *forma*, shape.] Having the shape of, or resembling a caterpillar; *appl.* insect larvae; *appl.* spores of certain lichens.

erumpent (ërüm'pënt) *a.* [L. *erumpere*, to break out.] Breaking through suddenly; *appl.* fungal hyphae.

erythrin (ërith'rín) *n.* [Gk. *erythros*, red.] A red colouring matter found in certain algae and lichens; $C_{20}H_{22}O_{10}$.

erythrism (ërith'rízim) *n.* [Gk. *erythros*, red.] Abnormal presence, or excessive amount, of red colouring matter, as in petals, feathers, hair, eggs; *cf.* rufinism.

erythroblasts (ërith'röbläst) *n. plu.* [Gk. *erythros*, red; *blastos*, bud.] Nucleated cells, derived from mesoderm, which later contain haemoglobin and develop into red blood corpuscles.

erythrochromism,—erythrism.

erythrocrucorin (ërith'rökroo'örín) *n.* [Gk. *erythros*, red; L. *cruor*, blood.] Red iron-containing respiratory pigment in some invertebrates.

erythrocyte (ërith'rösít) *n.* [Gk. *erythros*, red; *kytos*, hollow.] A red blood corpuscle.

erythrocyte-maturing factor,—formed by action of pyloric gland secretion (intrinsic factor) on extrinsic factor in food, and stored in liver, and necessary for maturation of red blood cells in bone-marrow; symbol: EMF; cyanocobalamin or vitamin D_{12} .

erythrocytolysis (ërith'rösitöl'ísís) *n.* [Gk. *erythros*, red; *kytos*, cell; *lysis*, loosing.] Destruction of red blood corpuscles; haemolysis.

erythron (ërith'rön) *n.* [Gk. *erythros*, red; *on*, being.] The red cells in bone marrow and circulating blood, collectively.

erythrophilous (ërith'röfil'üs) *a.* [Gk. *erythros*, red; *philein*, to love.] Having special affinity for red stains; *appl.* structures in a cell or to a type of cells.

erythrophore (ërith'röföör) *n.* [Gk. *erythros*, red; *pherein*, to bear.] A reddish-purple pigment-bearing cell.

erythrophyll (ërith'röfil) *n.* [Gk. *erythros*, red; *phyllon*, leaf.] A red colouring matter of some leaves and of red algae.

erythropoiesis (ërith'röpoi'ëísís) *n.* [Gk. *erythros*, red; *poiesis*, making.] The production of red blood corpuscles.

erythropsin (ërith'röp'sín) *n.* [Gk. *erythros*, red; *opsis*, sight.] Red colouring matter in insect eyes; rhodopsin, *q.v.*

erythrotin (ërith'rötín) *n.* [Gk. *erythros*, red.] Vitamin B_{12} , extracted from liver, anti-pernicious anaemia factor, and growth factor for certain micro-organisms.

erythrozyme (ërith'rözím) *n.* [Gk. *erythros*, red; *zyme*, leaven.] An enzyme capable of decomposing ruberythric acid, and acting upon glucosides.

escape (ěskāp') *n.* [M.E. *escapen*.] A plant originally cultivated, now found wild.

escutcheon (ěskūch'ūn) *n.* [O.F. *escuchon*, shield.] Area on rump of many quadrupeds which is either variously coloured or has the hair specially arranged; mesoscutellum of certain insects; ligamental area of certain bivalves.

escutellate,—exscutellate, *q.v.*

eseptate (ěsěp'tāt) *a.* [L. *ex*, without; *septum*, enclosure.] Not supplied with septa.

esodic (ěsōd'ik) *a.* [Gk. *eisodos*, a coming in.] Affluent; centripetal. *Opp.* exodic.

esophageal,—oesophageal.

esophagus,—oesophagus.

esoteric (ěsōtēr'ik) *a.* [Gk. *esoterikos*, arising within.] Arising within the organism.

espathate (ěspāth'āt) *a.* [L. *ex*, without; *spatha*, broad blade.] Having no spathe.

esquamate (ěskwā'māt) *a.* [L. *ex*, without; *squama*, scale.] Having no scale.

essential oils,—volatile oils, composed of various constituents and contained in plant organs, with characteristic odour.

esth,—see *aesth*.

estipulate (ěstip'ulāt) *a.* [L. *ex*, without; *stipula*, stem.] Having no stipules.

estival,—aestival.

estivation,—aestivation.

estr,—see *oestr*.

estriate (ěstri'āt) *a.* [L. *e*, out of; *striatus*, grooved.] Not marked by narrow parallel grooves or lines; not streaked.

estuarine (ěs'tuārīn) *a.* [L. *aestuarium*, estuary.] *Pert.* or found in an estuary; *appl.* organisms.

etaerio (ětě'riō) *n.* [Gk. *etairia*, association.] An aggregate fruit, composed of achenes, berries, drupels, follicles, or samaras; *eterio*; *cf.* *syncarp*.

etheogenesis (ěth'ēōjěn'ěsis) *n.* [Gk. *etheos*, youth; *genesis*, descent.] Parthenogenesis producing males;

development of a male gamete without fertilisation.

Ethiopian (ě'thiō'plān) *a.* [Gk. *aithiops*, burned-face.] *Appl.* or *pert.* a zoogeographical region including Africa south of the Sahara and southern Arabia, and divisible into African and Malagasy sub-regions.

ethmohyostylic (ěth'mōhi'ōstil'ik) *a.* [Gk. *ethmos*, sieve; *T*; *stylos*, pillar.] With mandibular suspension from ethmoid region and hyoid bar.

ethmoid (ěth'moid) *a.* [Gk. *ethmos*, sieve; *eidōs*, shape.] *Pert.* bones which form a considerable part of walls of nasal cavity.

ethmoidal (ěthmoi'dāl) *a.* [Gk. *ethmos*, sieve; *eidōs*, shape.] *Pert.* ethmoid bones or region.

ethmoidal notch,—a quadrilateral space separating the two orbital parts of the frontal bone; incisura ethmoidalis.

ethmolysian (ěth'mōlis'īān) *a.* [Gk. *ethmos*, sieve; *lyein*, to loosen.] *Pert.* an apical system in which the madreporite extends backwards till it separates the two posterolateral genitals.

ethmopalatine (ěth'mōpāl'ātīn) *a.* [Gk. *ethmos*, sieve; L. *palatus*, palate.] *Pert.* ethmoid and palatine bones, or their region.

ethmophract (ěth'mōfrākt) *a.* [Gk. *ethmos*, sieve; *phrassein*, to fence in.] *Pert.* a simple, compact, apical system with pores occurring only in right anterior corner.

ethmoturbinals (ěth'mōtūr'bīnāl) *n. plu.* [Gk. *ethmos*, sieve; L. *turbo*, whorl.] Cartilages or bones in nasal cavity which are folded so as to increase olfactory area.

ethmovomerine (ěth'mōvō'mērīn) *a.* [Gk. *ethmos*, sieve; L. *vomer*, plough-share.] *Pert.* ethmoid and vomer regions; *appl.* the cartilage which forms nasal septum in early embryo.

ethnography (ěthnōg'rāfi) *n.* [Gk. *ethnos*, nation; *graphein*, to write.] The description of the races of mankind.

ethnology (ēthnōl'ōjī) *n.* [Gk. *ethnos*, nation; *logos*, discourse.] Science dealing with the different races of mankind, their distribution, relationship, and activities.

ethology (ēthōl'ōjī) *n.* [Gk. *ethos*, custom; *logos*, discourse.] Bionomics; study of habits in relation to habitat; study of behaviour.

ethomereous (ēthōm'ērūs) *a.* [Gk. *ethos*, custom; *meros*, part.] Having the normal number of parts or segments; with normal number of chromosomes.

etiolation (ē'tiōlā'shūn) *n.* [F. *étiole*, to blanch.] Blanched condition produced in plants reared in darkness, or by disease.

etiolin (ē'tiōlin) *n.* [F. *étiole*, to blanch.] A yellowish pigment found in chloroplasts of plants grown in darkness; protochlorophyll.

etiology,—actiology, *q.v.*

euapogamy (ū'āpōg'āmī) *n.* [Gk. *eu*, well; *apo*, away; *gamos*, marriage.] Diploid apogamy, haploid apogamy being meiotic euapogamy.

euaster (ūās'tēr) *n.* [Gk. *eu*, good; *aster*, star.] An aster in which the rays meet at a common centre.

eucarpic (ū'kārpik) *a.* [Gk. *eu*, well; *karpos*, fruit.] Having the fruit-body formed by only a part of the thallus; *appl.* Phycomycetes having rhizoids or haustoria. *Opp.* holocarpic.

eucentric (ūsēn'trīk) *a.* [Gk. *eu*, well; *kentron*, centre.] Pericentric, *q.v.*

eucephalous (ūkēf'ālūs, -sēf-) *a.* [Gk. *eu*, good; *kephale*, head.] With well-developed head; *appl.* certain insect larvae.

euchroic (ūkrō'īk) *a.* [Gk. *eu*, well; *chros*, colour.] Having normal pigmentation; *opp.* epichroic, *appl.* fungi.

euchromatic (ū'krōmāt'īk) *a.* [Gk. *eu*, well; *chroma*, colour.] *Pert.* euchromatin; *appl.* chromosome regions which never become heteropycnotic. *Opp.* heterochromatic.

euchromatin (ūkrō'mātin) *n.* [Gk. *eu*, well; *chroma*, colour.] Chromatin making up bulk of chromosome and including active genes.

euchromosome (ūkrō'mōsōm) *n.* [Gk. *eu*, well; *chroma*, colour; *soma*, body.] A typical chromosome, or autosome.

eucoen (ūsēn) *n.* [Gk. *eu*, well; *koinos*, common.] Those members of a biocoenosis which are unable to live in a different environment. *Opp.* tychocoen.

eucone (ūkōn) *a.* [Gk. *eu*, good; *konos*, cone.] Having crystalline cones fully developed in single elements of compound eye.

eudipleural (ū'diploo'rāl) *a.* [Gk. *eu*, good; *dis*, double; *pleuron*, side.] Symmetrical about a median plane; bilaterally symmetrical.

eudoxome (ū'dōksōm) *n.* [Gk. *eudoxos*, glorious.] Monogastric free-swimming stage of a siphonophore without nectocalyx.

eugamic (ūgām'īk) *a.* [Gk. *eu*, well; *gamos*, marriage.] *Appl.* mature period, *opp.* agamic or youthful, and aged or senescent.

eugenic (ūjēn'īk) *a.* [Gk. *eugens*, well-born.] *Pert.* or tending towards racial improvement.

eugenics (ūjēn'īks) *n.* [Gk. *eu*, well; *genos*, birth.] The science dealing with the factors which tend to improve or impair stock.

euglenoid (ūglē'noid) *a.* [Gk. *eu*, well; *glene*, eyeball, puppet; *eidōs*, form.] *Pert.* or like Euglena; *appl.* characteristic movement of Euglena.

eugonic (ūgōn'īk) *a.* [Gk. *eu*, well; *gonos*, produce.] Prolific; growing profusely, *appl.* bacterial colonies.

euhaline (ūhāl'in) *a.* [Gk. *eu*, well; *halinos*, saline.] Living only in saline inland waters; *cf.* euryhaline.

eumelanin (ū'mēl'ānin) *n.* [Gk. *eu*, well; *melas*, black.] Black melanin; *cf.* phaeomelanin.

eumerism (ū'mērīzm) *n.* [Gk. *eu*, well; *meros*, part.] An aggregation of like parts.

eumeristem (ū'mēr'istēm) *n.* [Gk. *eu*, well ; *meristos*, divided.] Meristem composed of isodiametric thin-walled cells.

eumerogenesis (ū'mēr'ōjēn'ēsīs) *n.* [Gk. *eu*, well ; *meros*, part ; *genesis*, descent.] Segmentation in which the units are similar at least for a certain time.

eumitosis (ūmītō'sīs) *n.* [Gk. *eu*, well ; *mitos*, thread.] Typical mitosis.

eumitotic (ūmītōt'ik) *a.* [Gk. *eu*, well ; *mitos*, thread.] Anaschistic, *q.v.* ; *pert.* eumitosis.

euphotic (ūfō'tik) *a.* [Gk. *eu*, well ; *phos*, light.] Well illuminated, *appl.* zone, surface waters to depth of about 80 metres ; upper layer of photic zone ; *cf.* dysphotic.

euphotometric (ū'fōtōmēt'rik) *a.* [Gk. *eu*, well ; *phos*, light ; *metron*, measure.] *Appl.* leaves oriented to receive maximum diffuse light ; *cf.* panphotometric.

euplastic (ūplās'tik) *a.* [Gk. *eu*, well ; *plastos*, moulded.] Readily organised, easily forming a tissue.

euplectenchyma (ū'plēktēng'kimā) *n.* [Gk. *eu*, well ; *plektos*, plaited ; *engchyma*, infusion.] Fungal tissue composed of intertwined hyphae arranged in groups approximately at right angles to each other in three dimensions.

euploid (ū'ploid) *a.* [Gk. *eu*, well ; *haploos*, onefold ; *eidōs*, form.] Polyploid when total chromosome number is an exact multiple of the haploid number. *Opp.* aneuploid.

eupotamic (ūpōt'āmik) *a.* [Gk. *eu*, well ; *potamos*, river.] Thriving both in streams and in their backwaters ; *appl.* potamoplankton.

eupyrene (ū'pīrēn') *a.* [Gk. *eu*, well ; *pyren*, fruit-stone.] *Appl.* sperms of normal type ; *cf.* apyrene, oligopyrene.

eurybaric (ū'ribār'ik) *a.* [Gk. *eury*s, wide ; *baros*, weight.] *Appl.* animals adaptable to great differences in altitude, *opp.* stenobaric.

eurybathic (ū'ribāth'ik) *a.* [Gk. *eury*s, wide ; *bathys*, deep.] Having a large vertical range of distribution, *opp.* stenobathic.

eurybenthic (ū'ribēn'thik) *a.* [Gk. *eury*s, wide ; *benthos*, depth of the sea.] *Pert.* or living within a wide range of depth of the seabottom. *Opp.* stenobenthic.

eurychoric (ū'rikō'rik) *a.* [Gk. *eury*s, wide ; *choros*, place.] Widely distributed, *opp.* stenochoric.

eurycyst (ū'risist) *n.* [Gk. *eury*s, wide ; *kystis*, bladder.] Large cell of middle vein in mosses ; deuter cell ; pointer cell.

euryhaline (ū'rihāl'in) *a.* [Gk. *eury*s, wide ; *halinos*, saline.] *Appl.* marine organisms adaptable to a wide range of salinity, *opp.* stenohaline.

euryhygric (ū'rihī'grik) *a.* [Gk. *eury*s, wide ; *hygros*, wet.] *Appl.* organisms adaptable to a wide range of atmospheric humidity.

euryoecious (ū'riē'siūs) *a.* [Gk. *eury*s, wide ; *oikos*, abode.] Having a wide range of habitat selection, *opp.* stenoecious.

euryphagous (ū'rif'āgūs) *a.* [Gk. *eury*s, wide ; *phagein*, to eat.] Subsisting on a large variety of foods, *opp.* stenophagous ; *cf.* omnivorous.

eurypylous (ū'ripī'lūs) *a.* [Gk. *eury*s, broad ; *pyle*, gate.] Wide at the opening ; *appl.* canal system of sponges in which the chambers open directly into excurrent canals by wide apopyles, and receive water from incurrent canals through propyles.

eurysome (ū'risōm) *a.* [Gk. *eury*s, broad ; *soma*, body.] Short and stout, *opp.* leptosome.

eurythermic (ū'rithēr'mik) *a.* [Gk. *eury*s, wide ; *therme*, heat.] *Appl.* organisms adaptable to a wide range of temperature, *opp.* stenothermic, eurythermal, eurythermous.

eurytopic (ū'ritōp'ik) *a.* [Gk. *eury*s, wide ; *topos*, place.] Having a wide range of geographical distribution, *opp.* stenotopic.

eusporangiate (ū'spōrān'jīāt) *a.* [Gk. *eu*, well; *sporos*, seed; *anggeion*, vessel.] Having sporogenous tissue derived from inner cell that follows periclinal division of superficial initial; *cf.* leptosporangiate.

Eustachian (ūstā'klān) *a.* [*B. Eustachio*, Italian physician]. *Appl.* tube or canal connecting tympanic cavity with pharynx; *appl.* valve guarding orifice of inferior vena cava in atrium of heart.

eustele (ūstē'lē) *n.* [Gk. *eu*, well; *stele*, pillar.] The arrangement of vascular tissue into collateral or bicollateral bundles with conjunctive tissue between, as in gymnosperms and dicotyledons.

eusternum (ūstēr'nūm) *n.* [Gk. *eu*, well; *sternon*, breastplate.] A sternal sclerite of insects; antesternite, basisternum.

eustomatous (ūstōm'ātūs) *a.* [Gk. *eu*, well; *stoma*, mouth.] Having a distinct mouth-like opening.

eustroma (ūstrō'mā) *n.* [Gk. *eu*, well; *stroma*, bedding.] Stroma formed of fungus cells only.

eutelegensis (ū'tēlējēn'ēsīs) *n.* [Gk. *eu*, well; *tele*, afar; *genesis*, descent.] Improved breeding by artificial insemination.

euthenics (ūthēn'īks) *n.* [Gk. *euthen-ein*, to thrive.] The science of betterment of human race on the side of intellect and morals; the study of environmental agencies contributing to racial improvement.

eutherian (ūthē'rīān) *a.* [Gk. *eu*, well; *therion*, small animal.] *Appl.* placental mammals with development uterine till full-time.

euthycomous (ūthīk'ōmūs) *a.* [Gk. *euthys*, straight; *kome*, hair.] Straight-haired.

euthyneurous (ū'thīnū'rūs) *a.* [Gk. *euthys*, straight; *neuron*, nerve.] Having visceral loop of nervous system untwisted.

eutrophic (ūtrōf'īk) *a.* [Gk. *eu*, well; *trophē*, nourishment.] Providing, or *pert.*, adequate nutrition. *Opp.* dystrophic.

eutropic (ūtrōp'īk) *a.* [Gk. *eu*, well;

tropikos, turning.] Turning sunward; dextrorse.

eutropous (ū'trōpūs) *a.* [Gk. *eu*, well; *tropos*, direction.] Adapted to visiting special kinds of flowers, as certain insects. *Opp.* allotropic.

evaginate (ēvāj'īnāt) *v.* [L. *evaginare*, to unsheath.] To evert from a sheathing structure; to protrude by eversion.

evagination (ē'vājīnā'shūn) *n.* [L. *e*, out; *vagina*, sheath.] The process of unsheathing, or product of this process; an outgrowth.

evanescent (ēv'ānēs'ēnt) *a.* [L. *evanescere*, to vanish.] Disappearing early; *appl.* flowers which fade quickly.

evection (ēvēk'shūn) *n.* [L. *e*, out; *vehere*, to convey.] Displacement of parent cell at septum of a filament, causing dichotomous appearance, as in certain algae.

evelate (ēvē'lāt) *a.* [L. *e*, out of; *velatus*, veiled.] Without a veil or velum; *appl.* fungi.

eviscerate (ēvis'ērāt) *v.* [L. *ex*, out; *viscera*, entrails.] To disembowel; to eject the viscera, as do holothurians on capture.

evocation (ēv'ōkā'shūn) *n.* [L. *evocare*, to call forth.] The biochemical process whereby induced differentiation is called forth; induction as such.

evocator (ēv'ōkātōr) *n.* [L. *evocator*, caller forth.] The chemical stimulus furnished by an organiser, *q.v.*

evolute (ēv'ōlūt) *a.* [L. *evolvere*, to unroll.] Turned back; unfolded.

evolatility (ēv'ōlūtī'l'itī) *n.* [L. *evolvere*, to unroll.] Capability to evolve or change in structure; capacity to change in growth and form as a result of nutritional or other environmental factors.

evolution (ēv'ōlū'shūn) *n.* [L. *evolvere*, to unroll.] The gradual development of organisms from pre-existing organisms since the dawn of life.

evoluate (ēvōl'vāt) *a.* [L. *e*, out of; *volva*, wrapper.] Without a volva.

exalate (ěksā'lāt) *a.* [L. *ex*, without ; *ala*, wing.] Not having wing-like appendages ; apterous.

exalbuminous (ěk'sālbū'mīnūs) *a.* [L. *ex*, without ; *albumen*, white of egg.] Without albumen ; *appl.* seeds without endosperm or perisperm ; exendospermous.

exannulate (ěksān'ulāt) *a.* [L. *ex*, without ; *annulus*, ring.] Having a sporangium not furnished with an annulus ; *appl.* certain ferns.

exarate (ěks'ārāt) *a.* [L. *exaratus*, ploughed up.] *Appl.* a pupa with free wings and legs. *Opp.* obtect.

exarch (ěks'ārk) *n.* [L. *ex*, without ; Gk. *arche*, beginning.] With protoxylem strands outside metaxylem, or in touch with pericycle.

exasperate (ěgzās'perāt) *a.* [L. *exasperare*, to roughen.] Furnished with hard, stiff points.

excentric (ěksēn'trik) *a.* [L. *ex*, out of ; *centrum*, centre.] One-sided ; having the two portions of lamina unequally developed.

exciple (ěk'sipl) *n.* [L. *excipula*, receptacles.] The marginal wall, or outer covering, of apothecium in certain lichens ; excipulum.

excitability,—capacity of a living cell, or tissue, to respond to an environmental change or stimulus.

excitation (ěk'sitā'shūn) *n.* [L. *excitare*, to rouse.] Act of producing or increasing stimulation ; immediate response of protoplasm to a stimulus.

excitatory cells,—motor cells in sympathetic nervous system.

excitonutrient (ěksi'tōnū'triēnt) *a.* [L. *excitare*, to rouse ; *nutriens*, feeding.] Causing or increasing nutrient activities.

exconjugant (ěkskōn'joogānt) *n.* [L. *ex*, out ; *conjugare*, to yoke.] An organism which is leading an independent life after conjugation with another.

excorticate,—decorticate.

excreta (ěkskrē'tā) *n. plu.* [L. *excretum*, separated.] Waste material eliminated from body or any tissue

thereof ; deleterious substances formed within a plant.

excrete (ěkskrēt') *v.* [L. *ex*, out ; *cernere*, to sift.] To eliminate waste material from body ; to withdraw useless materials from the place of most active metabolism in plant.

excretion (ěkskrē'shūn) *n.* [L. *ex*, out ; *cernere*, to sift.] Act of eliminating waste material, or the product of the elimination.

excurrent (ěkskūr'ēnt) *a.* [L. *ex*, out ; *currere*, to run.] *Pert.* ducts, channels, or canals in which there is an outgoing flow ; with undivided main stem ; having midrib projecting beyond apex.

excurved (ěkskūrvd') *a.* [L. *ex*, out ; *curvare*, to curve.] Curved outwards from centre ; excurveate.

excystation (ěks'-sistā'shūn) *n.* [L. *ex*, out of ; Gk. *kystis*, bladder.] Emergence from encysted condition.

exendospermous (ěks'ēndōspēr'mūs) *a.* [L. *ex*, without ; Gk. *endon*, within ; *sperma*, seed.] Without endosperm ; exalbuminous, *q.v.*

exflagellation (ěksflāj'elā'shūn) *n.* [L. *ex*, out of ; *flagellum*, whip.] Process of microgamete formation by microgametocyte in Haemosporidia.

exfoliation (ěksfō'līā'shūn) *n.* [L. *ex*, out ; *folium*, leaf.] The shedding of leaves or scales from a bud.

exhalant (ěks'hālānt) *a.* [L. *ex*, out ; *halare*, to breathe.] Capable of carrying from the interior outwards.

exindusiate (ěk'sīndū'zīāt) *a.* [L. *ex*, out ; *indusium*, cover.] Having the sporangia uncovered or naked.

exine,—extine, *q.v.*

exinguinal (ěk'sīng'gwināl) *a.* [L. *ex*, out ; *inguen*, groin.] Occurring outside the groin ; *pert.* second joint of arachnid leg.

exites (ěk'sīts) *n. plu.* [Gk. *exo*, without.] Offshoots on outer lateral border of axis of certain arthropod limbs.

exobiotic (ěk'sōbiōt'ik) *a.* [Gk. *exo*, without ; *biotikos*, *pert.* life.] Living on the exterior of a substratum. *Opp.* endobiotic.

exocardiac (ĕk'sökâr'diäk) *a.* [Gk. *exo*, without; *kardia*, heart.] Situated outside the heart.

exocarp (ĕk'sökârp) *n.* [Gk. *exo*, without; *karpōs*, fruit.] Outer layer of the pericarp; epicarp.

exoccipital (ĕk'söksip'itäl) *a.* [L. *ex*, without; *occiput*, back of head.] *Pert.* a skull bone on each side of the foramen magnum.

exochiton (ĕk'söki'tōn) *n.* [Gk. *exo*, without; *chiton*, coat.] Outermost layer of oogonial wall, as in Fucales; exochite; *cf.* endochiton, mesochiton.

exochorion (ĕk'sökō'riōn) *n.* [Gk. *exo*, without; *chorion*, chorion.] Outer layer of membrane secreted by follicular cells surrounding the egg in ovary of insects.

exocoel (ĕk'sösēl) *n.* [Gk. *exo*, without; *koilos*, hollow.] The space between mesenteries of adjacent couples in certain Zoantharia; exocoelom, *q.v.*

exocoelar (ĕk'sösē'lär) *a.* [Gk. *exo*, without; *koilos*, hollow.] *Pert.* parietal wall of coelom.

exocoelic (ĕk'sösē'lik) *a.* [Gk. *exo*, without; *koilos*, hollow.] In Zoantharia, *pert.* space between adjacent couples of mesenteries; *appl.* radial areas on disc; *appl.* outermost cycle of tentacles.

exocoelom (ĕk'sösē'lōm) *n.* [Gk. *exo*, without; *koilos*, hollow.] Extra-embryonic body cavity of embryo.

exocone (ĕk'sökōn) *a.* [Gk. *exo*, without; *konos*, cone.] *Appl.* insect compound eye with cones of cuticular origin.

exocrine (ĕk'sökrīn) *a.* [Gk. *exo*, outwards; *krinein*, to separate.] *Appl.* glands whose secretion is drained by ducts; *cf.* endocrine, apocrine.

exocuticula (ĕk'sökütīk'ulä) *n.* [Gk. *exo*, without; L. *dim.* of *cutis*, skin.] Middle layer of insect cuticle, between endocuticula and epicuticula; outer layer of integument in spiders.

exoderm (ĕk'södërm) *n.* [Gk. *exo*,

without; *derma*, skin.] The dermal layer of sponges.

exodermis (ĕk'södër'mis) *n.* [Gk. *exo*, without; L. *dermis*, skin.] A specialised layer below the piliferous layer; ectoderm, *q.v.*

exodic (ĕksöd'ik) *a.* [Gk. *exodos*, a going out.] Efferent; centrifugal. *Opp.* esodic.

exoenzyme (ĕk'söen'zim) *n.* [Gk. *exo*, outside; *en*, in; *zyme*, leaven.] Any extracellular enzyme.

exogamete (ĕk'sögämët') *n.* [Gk. *exo*, without; *gametes*, mate.] A reproductive cell which fuses with one derived from another source.

exogamy (ĕksög'ämī) *n.* [Gk. *exo*, without; *gamos*, marriage.] Conjugation or fusion of isogametes with others of a different brood; outbreeding.

exogastric (ĕk'sögäs'trik) *a.* [Gk. *exo*, outwards; *gaster*, stomach.] Having the shell coiled towards dorsal surface of body.

exogastrula (ĕk'sögäs'troolä) *n.* [Gk. *exo*, without; *gaster*, stomach.] An hour-glass shaped sea-urchin larva induced experimentally.

exogenous (ĕksöj'ënūs) *a.* [Gk. *exo*, outside; *-genes*, produced.] Originating outside the organism; developed from superficial tissue, the superficial meristem; growing from parts which were previously ossified; *appl.* metabolism concerned with effector activities and temperature.

exognathion (ĕk'sögnäth'ion) *n.* [Gk. *exo*, without; *gnathos*, jaw.] The maxillary portion of upper jaw; the maxilla with exception of endognathion and mesognathion.

exo-intine (ĕk'söin'tin) *n.* [Gk. *exo*, without; L. *intus*, within.] Middle layer of a spore-covering, between extine and intine.

exolete (ĕk'sölēt) *a.* [L. *exolescere*, to grow out of use.] Disused; emptied, *appl.* capsules, perithecia, etc.

exomixis (ĕk'sömīk'sīs) *n.* [Gk. *exo*, outside; *mixis*, mingling.] Union of sex-elements derived from different sources, *opp.* endomixis.

exonephric (ĕk'sōnĕf'rik) *a.* [Gk. *exo*, without; *nephros*, kidney.] With nephridia opening to exterior; *opp.* enteronephric, *appl.* Oligochaeta.

exoparasite,—ectoparasite, *q.v.*

exoperidium (ĕk'sōpĕrid'ium) *n.* [Gk. *exo*, without; *peridion*, a small wallet.] The outer layer of spore case in certain fungi; epiperidium.

exophylaxis (ĕk'sōfilāk'sis) *n.* [Gk. *exo*, without; *phylax*, guard.] Protection afforded against pathogenic organisms by skin secretions.

exophytic (ĕk'sōfit'ik) *a.* [Gk. *exo*, outside of; *phyton*, plant.] On, or *pert.*, exterior of plants; *appl.* oviposition. *Opp.* endophytic.

exoplasm (ĕk'sōplāzm) *n.* [Gk. *exo*, without; *plasma*, mould.] Ectoplasm, *q.v.*

exopodite (ĕk'sōpōdīt) *n.* [Gk. *exo*, without; *pous*, foot.] The outer branch of a typical biramous crustacean limb.

exoscopic (ĕk'sōskōp'ik) *a.* [Gk. *exo*, without; *skopein*, to look.] With apex emerging through arche-gonium, *appl.* embryo. *Opp.* endoscopic.

exoskeleton (ĕk'sōskĕl'ētōn) *n.* [Gk. *exo*, without; *skeletos*, hard.] A hard supporting structure secreted by ectoderm or by skin.

exosmosis (ĕk'sōsmō'sis) *n.* [Gk. *exo*, outwards; *osmos*, impulse.] The passing out through a membrane of a gas or fluid. *Opp.* endosmosis.

exospore (ĕk'sōspōr), **exosporium** (ĕk'sōspō'rĭum) *n.* [Gk. *exo*, without; *sporos*, seed.] Outer coating of sporangial wall; a conidium.

exosporous (ĕk'sōspō'rūs) *a.* [Gk. *exo*, without; *sporos*, seed.] With spores borne or discharged exteriorly.

exostome (ĕk'sōstōm) *n.* [Gk. *exo*, without; *stoma*, mouth.] Outer portion of peristome in mosses. Opening or foramen in outer wall of ovule.

exostosis (ĕk'sōstō'sis) *n.* [Gk. *exo*, without; *osteon*, bone.] Formation of knots on surface of wood; formation of knob-like outgrowths

of bone at a damaged portion, or of dental tissue in a similar way.

exoteric (ĕk'sōtĕr'ik) *a.* [Gk. *exoteros*, beyond.] Produced or developed outside the organism.

exotheca (ĕk'sōthĕ'kā) *n.* [Gk. *exo*, without; *theke*, box.] The extra-capsular tissue of a coral.

exothecal (ĕk'sōthĕ'kāl) *a.* [Gk. *exo*, without; *theke*, box.] *Pert.* tissue outside the theca of a coral.

exothecate (ĕk'sōthĕ'kāt) *a.* [Gk. *exo*, without; *theke*, box.] Having an exotheca.

exothecium (ĕk'sōthĕ'siūm) *n.* [Gk. *exo*, without; *theke*, case.] The outer specialised dehiscing cell layer of the gymnosperm sporangium; *cf.* endothecium.

exothermic (ĕk'sōthĕr'mik) *a.* [Gk. *exo*, outwards; *therme*, heat.] Releasing heat-energy, *opp.* endothermic.

exotic (ĕgzōt'ik) *a.* [Gk. *exotikos*, foreign.] Introduced or non-endemic. *n.* A foreign plant or animal not acclimatised.

exotospore (ĕksō'tōspōr) *n.* [Gk. *exotos*, outward; *sporos*, seed.] A sporozoite.

exotoxin (ĕk'sōtōk'sin) *n.* [Gk. *exo*, outwards; *toxikon*, poison.] A soluble toxin excreted by bacteria, *opp.* endotoxin.

exotropism (ĕksōt'rōpizm) *n.* [Gk. *exo*, outwards; *trope*, turn.] Curvature away from axis, exhibited by a laterally geotropic organ.

expalbate,—epalbate, *q.v.*

expanting,—presumable neurohumor inducing expansion of chromatophores in crustaceans. *Opp.* contractin.

expiration (ĕk'spīrā'shūn) *n.* [L. *exspirare*, to breathe out.] The act of emitting air from lungs; emission of carbon dioxide by plants and animals.

expiratory (ĕkspī'rātōri) *a.* [L. *exspirare*, to breathe out.] *Pert.* or used in expiration; *appl.* muscles.

explanate (ĕks'plānāt) *a.* [L. *ex*, out; *planare*, to make plain.] Having a flat extension.

explantation (ék'splántā'shūn) *n.* [L. *ex*, out of; *plantare*, to plant.] Tissue culture away from organism of its origin.

explosive,—*appl.* flowers in which pollen is suddenly discharged on decompression of stamens by alighting insect, as of *Cytisus* and *Ulex*; *appl.* fruits with sudden dehiscence, seeds being discharged to some distance; *appl.* evolution, rapid formation of numerous types; tachytypogenesis; *appl.* speciation, rapid formation of species from a single species in one locality.

expressivity,—the degree to which a gene produces an effect.

exsculptate (éks'skúlp'tāt) *a.* [L. *ex*, out; *sculpare*, to carve.] Having the surface marked with more or less regularly arranged raised lines with grooves between.

exscutellate (ékskū'tēlāt) *a.* [L. *ex*, without; *scutellum*, small shield.] Having no scutellum; *appl.* insects.

exserted (éksēr'tēd) *a.* [L. *exserere*, to stretch out.] Protruding beyond some including organ or part; *appl.* stamens which project beyond corolla.

exsertile (éksēr'tīl) *a.* [L. *exserere*, to stretch out.] Capable of extrusion.

exstipulate (ékstīp'ūlāt) *a.* [L. *ex*, without; *stipula*, stem.] Without stipules.

exstrophy (éks'strōfi) *n.* [Gk. *exo*, outwards; *strophe*, turning.] Eversion, as normal or anomalous projection of luteal tissue to exterior of ovary.

exsuccate (éks-sūk'āt) *a.* [L. *ex*, out; *succus*, juice.] Sapless; without juice; without latex; exsuccous.

exsufflation (éks'sūflā'shūn) *n.* [L. *ex*, out; *sufflare*, to blow.] Forced expiration from lungs.

extend (ékstēnd') *v.* [L. *ex*, out; *tendere*, to stretch.] To straighten out, *opp.* to flex or bend any organ.

extensor (ékstēn'sōr) *n.* [L. *ex*, out; *tendere*, to stretch.] Any muscle

which extends a limb or part. *Opp.* flexor.

exterior (ékstē'rīōr) *a.* [L. *externus*, on outside.] Situated on side away from axis or definitive plane.

external (ékstēr'nāl) *a.* [L. *externus*, outside.] Outside or near the outside; away from the mesial plane.

externum (ékstēr'nūm) *n.* [L. *externus*, outward.] Outer region or cortex of a mitochondrion or of Golgi apparatus, or of acroblast.

exteroceptor (ék'stērōsēp'tōr) *n.* [L. *exter*, outside; *capere*, to take.] A receptor which receives stimuli from outside the body; a contact receptor, or a distance receptor.

extine (ék'stīn) *n.* [L. *exter*, outside.] Outer coat of spore or pollen grain; exosporium. *Opp.* intine.

extra-axillary (ék'strā-āks'īlārī) *a.* [L. *extra*, beyond; *axilla*, armpit.] Arising above axil of leaf, said of branches which develop from upper bud when there are more than one in connection with axil.

extrabranchial (ék'strābrāng'kiāl) *a.* [L. *extra*, beyond; Gk. *branchia*, gills.] Arising outside the branchial arches.

extracapsular (ék'strākāp'sūlār) *a.* [L. *extra*, outside; *capsula*, small box.] Arising or situated outside a capsule; *appl.* ligaments, etc., in connection with a joint; *appl.* protoplasm lying outside the central capsule in some protozoa; *appl.* dendrites.

extracellular (ék'strāsēl'ūlār) *a.* [L. *extra*, outside; *cellula*, little cell.] Occurring outside the cell; diffused out of the cell.

extracolumella (ék'strākōl'ūmēl'ā) *n.* [L. *extra*, beyond; *columella*, small column.] Distal element of auditory skeletal structure; also hyostapes.

extraembryonic (ék'strāēm'brīōn'īk) *a.* [L. *extra*, outside; Gk. *embryon*, foetus.] Situated outside the embryo proper, as portion of blastoderm.

extraenteric (ék'strāēntēr'īk) *a.* [L. *extra*, outside; Gk. *enteron*, gut.] Outside the alimentary tract.

extrafloral (ĕk'strāflō'rāl) *a.* [L. *extra*, outside; *flos*, flower.] Situated outside the flower; *appl.* nectaries.

extrafoveal (ĕk'strāfō'veāl) *a.* [L. *extra*, beyond; *fovea*, depression.] *Pert.* macula lutea surrounding fovea centralis; *appl.* rod vision. *Opp.* foveal.

extrahepatic (ĕk'strāhēpāt'ik) *a.* [L. *extra*, outside; Gk. *hepar*, liver.] *Appl.* cystic duct and common bile duct.

extramatrix (ĕk'strāmāt'rikāl) *a.* [L. *extra*, outside; *mater*, mother.] Located or growing on the surface of a matrix.

extranuclear (ĕk'strānū'klēār) *a.* [L. *extra*, outside; *nucleus*, kernel.] *Pert.* structures or forces acting outside the nucleus; situated outside the nucleus.

extraocular (ĕk'strāōk'ulār) *a.* [L. *extra*, outside; *oculus*, eye.] Exterior to the eye; *appl.* antennae of insects.

extraperitoneal,—subperitoneal.

extraspicular (ĕk'strāspik'ulār) *a.* [L. *extra*, outside; *spicula*, small spike.] With spicules having one end embedded in spongin and the other end free.

extrastapedial (ĕk'strāstāpē'diāl) *a.* [L. *extra*, beyond; *stapes*, stirrup.] Extending beyond the stapedio-columellar junction.

extrastelar (ĕk'strāstē'lār) *a.* [L. *extra*, outside; Gk. *stela*, column.] *Pert.* ground tissue outside vascular tissue.

extravaginal (ĕk'strāvāj'ināl) *a.* [L. *extra*, outside; *vagina*, sheath.] Forcing a way through the sheath, as shoots of many plants.

extravasate (ĕkstrāv'āsāt) *v.* [L. *extra*, outside; *vas*, vessel.] To force its way from the proper channel into the surrounding tissue, said of blood, etc.

extraventricular (ĕk'strāvētrik'ulār) *a.* [L. *extra*, beyond; *ventriculus*, belly.] Situated or arising beyond the ventricle.

extraxylary (ĕk'strāzī'lārī) *a.* [L. *extra*, outside; Gk. *xylon*, wood.]

On the outside of the xylem; *appl.* fibres.

extremity (ĕkstrēm'itī) *n.* [L. *extremitas*, limit.] The limb, or distal portion of a limb; distal end of any limb-like structure.

extrinsic (ĕkstrīn'sik) *a.* [L. *extrinsecus*, on outside.] Acting from the outside; not wholly within the part, *appl.* muscles; *appl.* cycles in population of a species, due to environmental fluctuation; *appl.* brightness due to objective light intensity. *Opp.* intrinsic.

extrorse (ĕkstrōrs') *a.* [L. *extrorsus*, outwardly.] Turned away from axis; *appl.* dehiscence of anthers.

exudation (ĕk'sūdā'shūn) *n.* [L. *exudare*, to sweat.] Any discharge through an incision or pore, *e.g.* gums, resins, moisture, etc.

exumbral (ĕksūm'brāl) *a.* [L. *ex*, out; *umbra*, shade.] *Pert.* rounded upper surface of a jelly-fish.

exumbrella (ĕks'ūmbrel'ā) *n.* [L. *ex*, out; *umbra*, shade.] Upper, convex surface of jelly-fish.

exuviae (ĕksū'viē) *n. plu.* [L. *exuere*, to strip off.] Cast-off skins, shells, etc., of animals.

exuvial (ĕksū'viāl) *a.* [L. *exuere*, to strip off.] Ecdysial; *appl.* insect glands whose secretion facilitates ecdysis.

eye (ī) *n.* [A.S. *éage*.] The organ of sight or vision; a pigment spot in various animals and in lower plants; the bud of a tuber.

eye-spots,—certain pigment spots in many lower plants and animals, and also in some vertebrates, which have a visual function; ocelli.

eye-teeth,—upper canine teeth.

F

F₁,—denotes first filial generation, or hybrids arising from a first cross, successive generations arising from this one being denoted by F₂, F₃, etc. P₁ denotes parents of F₁ generation, P₂ the grandparents, etc.

fabella (fäbél'ä) *n.* [*Dim.* of *L. faba*, bean.] A small fibrocartilage ossified in tendon of the lateral head of the gastrocnemius.

fabiform (fäb'förm) *a.* [*L. faba*, bean; *forma*, shape.] Bean-shaped.

Fabrician [*J. C. Fabricius*, Danish entomologist]. *Appl.* a classification of the Arthropoda based on the anatomy of the mouthparts.

facet (fäs'ët) *n.* [*F. facette*, small face.] A smooth, flat, or rounded surface for articulation; an ocellus; corneal portion of insect eye.

facial (fä'shāl) *a.* [*L. facies*, face.] *Pert.* face; *appl.* artery, bones, veins, etc.; *appl.* seventh cerebral nerve.

faciation (fäsīā'shūn) *n.* [*L. facies*, face.] Formation or character of facies; a grouping of dominant species within an association; geographical differences in abundance or proportion of dominant species in a community; *cf.* lociation.

facies (fä'shīēz) *n.* [*L. facies*, face.] The face; a surface, in anatomy; the general aspect of a plant; aspect, as superior and inferior; a particular modification of a biotope; a grouping of dominant plants in the course of a successional series; one of different types of deposit in a geological series or system; the palaeontological and lithological character of a deposit.

facilitation (fäsilitä'shūn) *n.* [*L. facilitas*, easiness.] Diminution of resistance to a stimulus subsequent to previous stimulation, as of nerves; *Ger.* Bahnung.

faciolingual (fä'sjöling'gwäl) *a.* [*L. facies*, face; *lingua*, tongue.] *Pert.* or affecting face and tongue.

factor (fäk'tör) *n.* [*L. facere*, to make.] Any agent (biotic, climatic, nutritional, etc.) contributing to a result; a Mendelian factor or gene; a determinant.

factorial (fäktö'riäl) *a.* [*L. facere*, to make.] *Pert.* genetic factors or genes.

facultative (fäk'ültä'tiv) *a.* [*L.*

facultas, faculty.] Having the power of living under different conditions; conditional; *appl.* organisms which may be normally self-dependent, but which are adaptable to a parasitic or semiparasitic mode of life; *appl.* aerobes, anaerobes; *appl.* parthenogenesis, symbionts, saprophytes, gametes, etc. *Opp.* obligate.

faeces (fē'sēz) *n. plu.* [*L. faeces*, dregs.] Excrement from alimentary canal.

falcate (fäl'kāt) *a.* [*L. falx*, sickle.] Sickle-shaped; hooked.

falces (fäl'sēz) *n. plu.* [*L. falces*, sickles.] Chelicerae, of arachnids.

falciform (fäl'siförm) *a.* [*L. falx*, sickle; *forma*, shape.] Sickle-shaped or scythe-shaped; *appl.* ligament, a dorso-ventral fold of peritoneum, attached to under surface of diaphragm and anterior and upper surfaces of liver; *appl.* process, processus falciformis, a fold of choroid penetrating retina near optic disc and ending at back of lens, functioning in accommodation in teleosts; *appl.* body, a sporozoite; *appl.* young, sporocysts enclosing several spores in certain sporozoa.

falcula (fäl'küäl) *n.* [*L. falcula*, little hook.] A curved scythe-like claw; the falx cerebelli.

falcular,—sickle-shaped; falcuate; *pert.* falcula; *pert.* falx.

falcuate,—curved, and sharp at the point.

Fallopian tube [*G. Fallopio*, Italian anatomist]. Uterine tube, upper portion of oviduct in mammals; anterior portion of the Müllerian duct.

false fruits,—fruits formed from the receptacle or other parts of the flower, in addition to the ovary, or from complete inflorescences.

false ribs,—those ribs whose cartilaginous ventral ends do not join the sternum directly; asternal ribs.

false vocal cords,—ventricular folds of larynx, two folds of mucous membrane, each covering a ligament, anterior to true vocal cords.

falx (fālks) *n.* [L. *falx*, sickle.] A sickle-shaped fold of the dura mater; inguinal aponeurosis of transverse and internal oblique muscles of abdomen; a sickle-shaped lymph.

family (fām'īlī) *n.* [L. *familia*, household.] Term used in classification, signifying a group of related genera, families being grouped into orders.

famulus (fām'ülūs) *n.* [L. *famulus*, attendant.] A tarsal sensory seta in certain mites.

fan (fān) *n.* [A.S. *fann*, fan.] A bird's tail feathers; a flabellum, *q.v.*; a rhipidium, *q.v.*; vannus, *q.v.*

fang (fāng) *n.* [A.S. *fang*, grip.] A long-pointed tooth, especially the poison tooth of snakes; the root of a tooth.

faradisation (fār'ādīzā'shūn) *n.* [*M. Faraday*, English physicist]. Method of stimulation inducing partial or complete tetanus.

farctate (fārktāt) *a.* [L. *farctus*, stuffed.] Filled, not hollow.

farina (fārē'nā, fārī'nā) *n.* [L. *farina*, flour.] The pollen of plants; the fine mealy-like powder found on some insects.

farinaceous (fār'īnā'shūs) *a.* [L. *farina*, flour.] Containing flour; starchy; farinose.

farinose (fār'īnōs) *a.* [L. *farina*, flour.] Producing, or covered with, fine powder or dust.

fascia (fās'īā, fāsh'īā) *n.* [L. *fascia*, band.] An ensheathing band of connective tissue.

fascial (fās'īāl, fāsh'īāl) *a.* [L. *fascia*, bundle.] *Pert.* a fascia, ensheathing and binding.

fasciated (fās'īā'tēd, fāsh'īā'tēd) *a.* [L. *fascia*, bundle.] Banded; arranged in fascicles; *appl.* stems or branches malformed and flattened.

fasciation (fāshīā'shūn) *n.* [L. *fascia*, bundle.] The formation of fascicles; coalescent development of branches of a shoot-system, as in cauliflower.

fascicle (fās'īkl) *n.* [L. *fasciculus*,

small bundle.] A small bundle or tuft, as of fibres, or of leaves.

fascicular (fāsīk'ülār) *a.* [L. *fasciculus*, small bundle.] *Pert.* a fascicle; arranged in bundles or tufts; *appl.* cambium, tissue.

fasciculus (fāsīk'ülūs) *n.* [L. *fasciculus*, small bundle.] A fascicle; a group, bundle, or tract of nerve fibres, as of medulla spinalis.

fasciola (fāsī'ölā) *n.* [L. *fasciola*, small bandage.] A narrow colour band; a delicate lamina continuous with supracallosal gyrus.

fasciole (fās'īöl) *n.* [L. *fasciola*, small bandage.] Ciliated band on certain echinoids for sweeping water over surrounding parts.

fastigate (fāstij'īāt) *a.* [L. *fastigare*, to slope up.] With branches close to stem and erect, *opp.* patent; in pyramidal or conical form.

fastigium (fāstij'īūm) *n.* [L. *fastigium*, gable.] Angular top of roof of fourth ventricle, formed by contact of anterior and posterior medullary vela of cerebellum.

fat (fāt) *n.* [A.S. *faet*, fat.] Adipose tissue; any part of animal tissue which has its cells filled with a greasy or oily reserve material.

fat-body,—one of the vascularised tissue structures filled with fat globules and associated with gonads in Amphibia; one of the subcutaneous organs along ventral sides and enlarged during breeding season in Lacertilia; tissue of indeterminate form distributed throughout body of insects and functioning as nutritive reserve; corpus adiposum; epiploon.

fat soluble,—*appl.* vitamins A, D, E, and K.

fatigue (fātēg') *n.* [L. *fatigare*, to weary.] Effect produced by long stimulation on cells of an organ.

fauces (fôs'ēz) *n. plu.* [L. *fauces*, throat.] Upper or anterior part of throat between palate and pharynx; mouth of a spirally coiled shell; throat of a corolla.

fauna (fôn'ă) *n.* [*L. faunus*, god of woods.] All the animals peculiar to a country, area, or period.

faunal region,—an area characterised by a special group or groups of animals.

faunula (fôn'ulă) *n.* [*Dim. of fauna.*] Animal population of a small unit area, as of intestine, bark, etc.

favella (fävêl'ă) *n.* [*L. favus*, honey-comb.] A conceptacle of certain red algae.

faveolate (fävê'ölăt) *a.* [*L. faveolus*, *dim. of favus*, honey-comb.] Honey-combed or alveolate.

faveolus (fävê'ölūs) *n.* [*L. faveolus*, small honey-comb.] A small depression or pit; alveola.

favoid (fäv'oid) *a.* [*L. favus*, honey-comb; *Gk. eidos*, form.] Resembling a honey-comb.

favose (fävōs') *a.* [*L. favus*, honey-comb.] Honeycombed; alveolate.

feather-epithelium,—epithelium of cells, each having a process with numerous lateral filaments, on inner surface of nictitating membrane of many reptiles and birds, for cleaning the eye surface.

feather-veined,—*appl.* leaf in which veins run out from mid-rib in regular series at an acute angle; pinnately veined.

feces,—faeces.

Fechner's Law [*G. T. Fechner*, German psychophysicist]. The tendency of intensity of sensation to vary as the logarithm of the stimulus.

fecundate (fê'kündăt) *v.* [*L. fecundare*, to make fruitful.] To impregnate; to fertilise; to pollinate.

fecundity (fêkûn'diti) *n.* [*L. fecunditas*, fruitfulness.] Power of a species to multiply rapidly; capacity to form reproductive elements.

female (fê'māl) *n.* [*L. femina*, women.] A pistillate flower; an egg-producing or young-producing animal—symbol ♀.

female pronucleus,—the nucleus left in the ovum after maturation.

femoral (fêm'ôrāl) *a.* [*L. femur*, thigh.] *Pert.* thigh; *appl.* artery,

vein, nerve, etc.; *crural. n.* Paired femoral shield of plastron in Chelonia.

femur (fê'mūr) *n.* [*L. femur*, thigh.] The thigh-bone, proximal bone of hind limb in vertebrates; third joint in insect and spider leg counting from proximal end.

fenchone (fên'chôn) *n.* [*Ger. Fenchel*, fennel.] A ketone, the essential oil in oil of fennel; $C_{10}H_{16}O$.

fenestra (fênēs'tră) *n.* [*L. fenestra*, window.] An opening in a bone, or between two bones, or in a plant membrane; a pit on head of cockroach; fontanelle of termites; a transparent spot on wings of insects.

fenestrate (fênēs'trăt) *a.* [*L. fenestra*, window.] Having small perforations or transparent spots, *appl.* insect wings; having numerous perforations, *appl.* leaves, dissepiments.

fenestrated membrane,—a close network of yellow elastic fibres resembling a membrane with perforations, as in inner tunic of arteries; basal membrane of compound eye, penetrated by ommatidial nerve fibres.

fenestrule (fênēs'trool) *n.* [*Dim. of L. fenestra*, window.] Small opening between branches of a polyzoan colony.

feral (fê'răl) *a.* [*L. fera*, wild animal.] Wild, or escaped from cultivation or domestication and reverted to wild state.

ferment (fêr'mënt) *n.* [*L. fermentum*, ferment.] An organised substance, capable of producing fermentation; an enzyme.

fermentation (fêr'mëntă'shün) *n.* [*L. fermentum*, ferment.] A transformation occurring in organic substance, usually of a carbohydrate, caused by action of a ferment; zymosis.

ferrichrome (fêr'ikrôm) *n.* [*L. ferrum*, iron; *Gk. chroma*, colour.] An iron-containing nitrogenous pigment, precursor of cytochrome, found in smut fungi.

ferrocyles (fēr'ōsīts) *n. plu.* [L. *ferrum*, iron; Gk. *kytos*, hollow.] Cells formed from lymphocytes, containing iron compounds and concerned with tunicin production in ascidians.

ferruginous (fēroo'jīnūs) *a.* [L. *ferruginus*, rusty.] Having the appearance of iron rust.

fertile (fēr'tīl) *a.* [L. *fertilis*, fertile.] Capable of producing living offspring; of eggs or seeds, capable of developing.

fertilisation (fēr'tīlīzā'shūn) *n.* [L. *fertilis*, fertile.] The union of male and female pronuclei; pollination.

fertilisation - tube,—process of an antheridium, penetrating oogonial wall, for passage of male gamete in certain fungi.

fertility vitamin,—*a*-tocopherol or vitamin E; anti-sterility vitamin.

fertilizin (fēr'tīl'īzīn) *n.* [L. *fertilis*, fertile.] A soluble colloidal substance produced by certain eggs and causing sperm agglutination, also inducing cleavage; gynogamone II.

festoon (fēstoon') *n.* [F. *feston*, garland.] The margin, with rectangular divisions, of integument in ticks; rim of gum round neck of tooth.

fetlock (fēt'lōk) *n.* [A.S. *foṭ*, foot; *loc*c, tuft of hair.] The tuft of hair behind a horse's pastern joint; the pastern joint itself.

fetus,—*see* foetus.

fibre (fī'bēr) *n.* [L. *fibra*, band.] A strand of nerve, muscle, connective, or bast tissue; elongated plant-cell for mechanical strength; fiber.

fibre tracheids,—fibres of a nature intermediate between that of libriform fibres and of tracheids.

fibril (fī'brīl) *n.* [L. *fibrilla*, small fibre.] A small thread-like structure or fibre; a component part of a fibre; a root-hair; a slender filiform outgrowth on some lichens.

fibrillae (fibrīl'ē) *n. plu.* [L. *fibrilla*, small fibre.] Thread-like branches of roots; minute elastic fibres secreted within spongin cells;

minute muscle-like threads found in various infusorians; fibrils.

fibrillate (fīb'rīlāt) *a.* [L. *fibrilla*, small fibre.] Having fibrillae or hair-like structures.

fibrilloblast,—odontoblast, *q.v.*

fibrillose (fīb'rīl'ōs, fī'brīlōs) *a.* [L. *fibrilla*, small fibre.] Furnished with fibrils; *appl.* mycelia of certain fungi.

fibrin (fī'brīn) *n.* [L. *fibra*, band.] An insoluble protein found in blood after coagulation, readily digested in gastric juice.

fibrinogen (fīb'rīn'ōjēn) *n.* [L. *fibra*, band; Gk. *-genes*, producing.] A soluble protein of blood, which, by activity of thrombin, yields fibrin and produces coagulation.

fibroblast (fī'brōblāst) *n.* [L. *fibra*, band; Gk. *blastos*, bud.] A connective tissue cell; fibrocyte, desmocyte.

fibrocartilage (fī'brōkār'tīlēj) *n.* [L. *fibra*, band; *cartilago*, gristle.] A kind of cartilage whose matrix is mainly composed of fibres similar to connective tissue fibres, found at articulations, cavity margins, and osseous grooves.

fibrocyte (fī'brōsīt) *n.* [L. *fibra*, band; Gk. *kytos*, hollow.] A connective tissue cell; desmocyte.

fibrous (fī'brūs) *a.* [L. *fibra*, band.] Composed of fibres; *appl.* tissue, roots, mycelium, etc.

fibula (fīb'ulā) *n.* [L. *fibula*, buckle.] Outer and smaller shin bone.

fibulare (fīb'ulā'rē) *n.* [L. *fibula*, buckle.] The outer element of proximal row of tarsus.

fidelity (fīdēl'itī) *n.* [L. *fidelitas*, faithfulness.] The degree of limitation of a species to a particular habitat.

field,—a dynamic system in which all the parts are interrelated and in equilibrium, so that a change in any part affects the whole.

filament (fil'āmēt) *n.* [L. *filum*, thread.] A thread-like structure; the stalk of anther; a hypha, *q.v.*; stalk of a down-feather; a cryptoptile; slender apical end of egg-tube of insect ovary.

filamentous (filāmēn'tūs) *a.* [L. *filum*, thread.] Thread-like; having filaments; *appl.* form or margin of certain bacterial colonies; *appl.* thallus of fruticose lichens; *appl.* amino acids, etc.

filator (fil'ätör) *n.* [L. *filum*, thread.] A structure forming part of the spinning organ of silkworms and which regulates size of the silk fibre.

filial generation,— F_1 , etc., *q.v.*

filial regression,—tendency of offspring of outstanding parentage to revert to average for species.

filicauline (fil'iköl'in) *a.* [L. *filum*, thread; *caulis*, stalk.] With a thread-like stem.

filiciform (fil'isiförm) *a.* [L. *filix*, fern; *forma*, shape.] Shaped like the frond of a fern; fern-like.

filicoid,—filiciform.

filiform (fī'liförm) *a.* [L. *filum*, thread; *forma*, shape.] Thread-like.

filiform papillae,—papillae on the tongue, ending in numerous minute slender processes.

filigerous (filij'erūs) *a.* [L. *filum*, thread; *gerere*, to carry.] With thread-like outgrowths or flagella.

Filippi's glands,—paired glands with ducts conveying viscid secretion into silk ducts.

fillet (fil'ët) *n.* [L. *filum*, thread.] Band of white matter in mid-brain and medulla oblongata; lemniscus.

filoplume (fī'löploom) *n.* [L. *filum*, thread; *pluma*, feather.] A delicate hair-like feather with long axis and a few free barbs at apex.

filopodia (fī'löpō'diä) *n. plu.* [L. *filum*, thread; Gk. *pous*, foot.] Protozoan thread-like pseudopodia.

filose (fī'lös) *a.* [L. *filum*, thread.] Slender; thread-like; *appl.* pseudopodia of protozoa.

filter-passers,—organisms capable of passing through a filter which arrests bacteria; microhenads; viruses.

filtration (filträ'shün) *n.* [F. *filtrer*,

to strain.] *Appl.* iridial angle of cornea; straining, as of lymph through capillary walls.

filum terminale,—the terminal thread, a slender grey filament, of the spinal cord.

fimbria (fim'briä) *n.* [L. *fimbria*, fringe.] Any fringe-like structure; a posterior prolongation of fornix to hippocampus; one of delicate processes fringing the mouth of tube or duct, as of oviduct, or of siphon of molluscs.

fimbriated (fim'briät'ed) *a.* [L. *fimbriatus*, fringed.] Fringed at margin, as petals, tubes, ducts, antennae.

fimicolous (fimik'ölüs) *a.* [L. *finus*, dung; *colere*, to dwell.] Inhabiting or growing on dung.

fin (fin) *n.* [A.S. *finn*, fin.] A fold of skin with fin-rays and skeletal supports, in most fishes.

finials (fin'ialz) *n. plu.* [L. *finis*, end.] The ossicles of the distal rami of crinoids, which do not branch again.

fin-rays,—horny supports of fins.

fissile (fis'il) *a.* [L. *fissilis*, cleft.] Tending to split; cleavable.

fissilingual (fis'iling'gwäl) *a.* [L. *fissus*, cleft; *lingua*, tongue.] With bifid tongue.

fission (fish'ün) *n.* [L. *fissus*, cleft.] Cleavage of cells; division of a unicellular organism into two or more parts.

fissiparous (fisip'ärüs) *a.* [L. *fissus*, cleft; *parere*, to beget.] Reproducing by fission.

fissiped (fis'ipēd) *n.* [L. *fissus*, cleft; *pes*, foot.] With cleft feet, that is, with digits of feet separated.

fissirostral (fis'irös'träl) *a.* [L. *fissus*, cleft; *rostrum*, beak.] With deeply-cleft beak.

fissure (fish'ür) *n.* [L. *fissura*, cleft.] A cleft, deep groove, or furrow dividing an organ into lobes, or subdividing and separating certain areas of the lobes; sulcus.

fistula (fis'tülä) *a.* [L. *fistula*, pipe.] Pathological or artificial pipe-like opening; trachea, water-conducting vessel.

fistular (fis'tulār) *a.* [L. *fistula*, pipe.] Like a fistula; pipe-like; hollow, as stems of Umbelliferae.

fix (fiks) *v.* [L. *fixus*, fixed.] To kill, and preserve; to establish; to retain.

fixation muscles, — muscles which prevent disturbance of body equilibrium generally, and fix limbs in case of limb-movements.

flabellate (fläbēl'ät) *a.* [L. *flabellare*, to fan.] Fan-shaped; *appl.* pectinate antennae with long processes.

flabelliform (fläbēl'iförm) *a.* [L. *flabellum*, fan; *forma*, shape.] Fan-shaped.

flabellinerved (fläbēl'inērvd) *a.* [L. *flabellum*, fan; *nervus*, sinew.] *Appl.* leaves with many radiating nerves.

flabellum (fläbēl'üm) *n.* [L. *flabellum*, fan.] Any fan-shaped organ or structure; distal exite of branchiopodan limb; epipodite of certain crustacean limbs; terminal lobe of glossa in certain insects; diverging white fibres in corpus striatum.

flagella,—*plu.* of flagellum.

flagellate (fläj'elät) *a.* [L. *flagellum*, whip.] Furnished with flagella; like a flagellum.

flagelliform (fläjēl'iförm) *a.* [L. *flagellum*, whip; *forma*, shape.] Lash-like; like a flagellum.

flagellula (fläjēl'ülä) *n.* [L. *flagellum*, whip.] A flagellate zoospore or flagellispore.

flagellum (fläjēl'üm) *n.* [L. *flagellum*, whip.] The lash-like process of many Protista and of cells, as in choanocytes and certain male gametes; external structure on basal joint of chelicera of Pseudoscorpiones; distal part of antenna in some arthropods, as in Diptera; a long slender runner or creeping stem.

flame cells,—the terminal cells of branches of excretory system in many worms, with cavity continuous with lumen of duct, and containing a cilium or bunch of cilia, the

motions of which give a flickering appearance similar to that of a flame; a pronephridiostome.

flavedo (flävē'dō) *n.* [L. *flavus*, yellow.] Exocarp of hesperidium; *cf.* albedo.

flavescent (flävēs'ënt) *a.* [L. *flavescere*, to turn yellow.] Growing yellow.

flavin (flä'vín) *n.* [L. *flavus*, yellow.] A water-soluble yellow pigment of cells; lyochrome.

flavonoids,—*see* bioflavonoids.

flavoproteins (flä'vöprō'tēinz) *n. plu.* [L. *flavus*, yellow; Gk. *proteios*, first.] Compounds of proteins and flavin, being yellow enzymes which can be alternately reduced and oxidised, essential in cell metabolism.

flavoxanthin (flä'vözän'thín) *n.* [L. *flavus*, yellow; Gk. *xanthos*, yellow.] A yellow colouring matter in petals, as of Ranunculaceae; $C_{40}H_{56}O_8$.

flex (flēks) *v.* [L. *flectere*, to bend.] To bend; *appl.* movement of limbs.

flexor (flēk'sör) *n.* [L. *flexus*, bent.] A muscle which bends a limb, or part, by its contraction.

flexor plate,—a median plate supporting praetarsus of insects, for attachment of tendon of claw flexor.

flexuous (flēk'sūūs) *a.* [L. *flexus*, bent.] Curving in a zig-zag manner; flexuose.

flexure (flēk'sūr) *n.* [L. *flexus*, bent.] A curve or bend; *appl.* curve in embryonic brain, curve of intestine.

float (flōt) *n.* [A.S. *floatan*, to float.] The pneumatophore of siphonophores; one of four tracheal sacs in aquatic larva of Culicidae; a large spongy mass serving as a float in some pteridophytes.

floating ribs,—ribs not uniting at their ventral end with the sternum.

floccose (flök'ōs) *a.* [L. *floccus*, a lock of wool.] Covered with wool-like tufts; *appl.* bacterial growth.

floccular (flök'ülär) *a.* [L. *floccus*, lock of wool.] *Pert.* the flocculus.

floculence (flōk'ūlēns) *n.* [L. *flocus*, lock of wool.] Adhesion in small flakes, as of a precipitate.

floculent (flōk'ūlēnt) *a.* [L. *flocus*, lock of wool.] Covered with a soft waxy substance giving appearance of wool; covered with small woolly tufts.

floculus (flōk'ūlūs) *n.* [L. *dim.* of L. *flocus*, lock of wool.] A small accessory lobe on each lateral lobe of the cerebellum; a posterior hairy tuft in some Hymenoptera.

flocus (flōk'ūs) *n.* [L. *flocus*, lock of wool.] The tuft of hair terminating a tail; downy plumage of young birds; mass of hyphal filaments in algae and fungi.

flora (flō'rā) *n.* [L. *flos*, flower.] The plants peculiar to a country, area, specified environment, or period.

floral (flō'rāl) *n.* [L. *flos*, flower.] *Pert.* the flora of a country or area; *pert.* flowers.

florescence (flōrēs'ēns) *n.* [L. *florescere*, to begin to flower.] Bursting into bloom; anthesis.

floret (flō'rēt) *n.* [L. *flos*, flower.] One of the small individual flowers of a composite flower; flower with lemma and palea, of grasses.

floricome (flō'rīkōm) *n.* [L. *flos*, flower; *coma*, hair.] A form of branched hexaster spicule.

florigen (flō'rījēn) *n.* [L. *flos*, flower; *gignere*, to produce.] A plant substance which stimulates change in buds to flowering condition; flowering hormone.

florigenic (flō'rījēn'ik) *a.* [L. *flos*, flower; *gignere*, to produce.] *Appl.* principle originating in leaves which stimulates flowering.

florula (flō'rūlā) *n.* [*Dim.* of *flora*.] Plant population of a small unit area, as of compost heap, etc.

floscelle (flōsēl') *n.* [L. *flosculus*, little flower.] Flower-like structure round the mouth, composed of five bourrelets and five phyllodes, in some echinoids.

flosculus (flōs'kūlūs) *n.* [L. *flosculus*, little flower.] A small flower; a floret, *q.v.*; floscule.

floss (flōs) *n.* [O.F. *flosche*, down.] A downy or silky substance; the loose pieces of silk in a cocoon.

flower (flow'ēr) *n.* [L. *flos*, flower.] The blossom of a plant, comprising generally sepals, petals, stamens, and pistil; a leafy shoot adapted for reproductive purposes.

flowering glume,—lemma, *q.v.*

fluviatile (flōo'viātīl) *a.* [L. *fluviatilis*, *pert.* river.] Growing in or near streams; inhabiting and developing in streams, *appl.* certain insect larvae; caused by rivers, *appl.* deposits.

fluviomarine (flōo'viōmārēn') *a.* [L. *fluvius*, stream; *mare*, sea.] *Pert.* or inhabiting rivers and sea.

fluvioterrestrial (flōo'viōtērēs'triāl) *a.* [L. *fluvius*, stream; *terra*, land.] Found in streams and in the land beside them.

flux (flūks) *n.* [L. *fluere*, to flow.] Term *appl.* species that are not yet stable.

foetal (fē'tāl) *a.* [L. *foetus*, offspring.] Embryonic; *pert.* a foetus.

foetid glands,—small sac-like glands which secrete an ill-smelling fluid, in Orthoptera.

foetus (fē'tūs) *n.* [L. *foetus*, offspring.] An embryo in egg or in uterus.

folacin,—folic acid.

foliaceous (fō'liā'shūs) *a.* [L. *folium*, leaf.] Having the form or texture of a foliage leaf; thin and leaf-like.

Folian process [C. *Folli* or *Folius*, Italian anatomist]. Anterior process of malleus; processus gracilis.

foliar (fō'liār) *a.* [L. *folium*, leaf.] *Pert.* or consisting of leaves; bearing leaves, *appl.* spurs, *cf.* brachyplast.

foliation (fōliā'shūn) *n.* [L. *folium*, leaf.] The production of leaves; leafing.

folic (fō'lik) *a.* [L. *folium*, leaf.] *Appl.* acid obtained from spinach, and liver extract, $C_{15}H_{15}O_8N_5$, and existing in various forms, with haematopoietic and other effects; *e.g.* vitamins B₉, B₁₂, M, factors R and S, rhizopterin, etc.

folicaulicolous (fō'likōlik'ölüs) *a.* [L. *folium*, leaf; *caulis*, stalk; *colere*, to inhabit.] Growing on leaves and stems; *appl.* certain fungi and lichens; folicaulicole.

foliicolous (fōlīk'ölüs) *a.* [L. *folium*, leaf; *colere*, to dwell.] Growing on leaves; *appl.* certain fungi and lichens.

foliobranchiate (fō'liöbräng'kfāt) *a.* [L. *folium*, leaf; *branchiae*, gills.] Possessing leaf-like gills.

foliolae (fō'liölē) *n. plu.* [L. *folium*, *dim.*, leaf.] Leaf-like appendages of telum.

foliolate (fō'liölāt) *a.* [L. *folium*, *dim.*, leaf.] *Pert.*, having, or like, leaflets.

folioli (fō'liöl) *n.* [L. *folium*, *dim.*, leaf.] Small leaf-like organ or appendage; a leaflet, as of a compound leaf.

foliose (fō'liös) *a.* [L. *folium*, leaf.] With many leaves; leafy.

folium (fō'liūm) *n.* [L. *folium*, leaf.] A flattened structure in the cerebellum, expanding laterally into superior semilunar lobules.

follicle (fōl'īkl) *n.* [L. *folliculus*, small sac.] A capsular fruit which opens on one side only; cavity or sheath; an ovarian follicle; a hair follicle.

follicles of Langerhans [*P. Langerhans*, German anatomist]. Groups of cells in submucosa at junction of fore-gut and mid-gut of larval cyclostomes, secreting an insulin-like substance and being homologous to islets of Langerhans.

follicle-stimulating hormone, — a gonadotrophic hormone, prolan A, which stimulates ovarian follicles and testis; symbol FSH.

follicular (fōlik'ülär), **folliculate** (fōlik'ülāt) *a.* [L. *folliculus*, small sac.] *Pert.*, like, or consisting of follicles; *appl.* an ovarian hormone.

folliculose (fōlik'ülös) *a.* [L. *folliculus*, small sac.] Having follicles.

Fontana's spaces [*F. Fontana*, Italian anatomist]. Spaces in trabecular tissue of angle of iris, communicating with the anterior

chamber of the eye and with the sinus venosus sclerae.

fontanelle (fōn'tänēl) *n.* [F. *fontanelle*, little fountain.] A gap or space between bones in the cranium, closed only by membrane; depression on head of termites.

fonticulus (fōntik'ülüs) *n.* [L. *fonticulus*, *dim.* of *fons*, fountain.] A fontanelle; depression at anterior end of sternum, the jugular notch.

food-chain,—sequence of organisms in which each is food of a later member of the sequence.

food vacuole,—a small vacuole containing fluid and food-particles, in endosarc of many Protista.

food-web, — interconnected food-chains.

foot (foot) *n.* [A.S. *fot*, foot.] An embryonic structure in vascular cryptogams through which nourishment is obtained from prothallus; basal portion of sporophyte in mosses; an organ of locomotion, differing widely in different animals, from tube-foot of echinoderms, muscular foot of gastropods and other molluscs, tarsus of insects, to foot of vertebrates.

foot-jaws,—poison-claws or first pair of legs in centipedes; maxillipedes.

foot-plates,—terminal enlargements of processes of protoplasmic astrocytes in contact with minute blood-vessels; perivascular feet.

foramen (fōrāmēn) *n.* [L. *foramen*, opening.] The opening through coats of ovule; any small perforation; aperture through a bone or membranous structure.

foramen (occipitale) magnum,—the opening in occipital region of skull through which passes the spinal cord.

foramen of Monro [*A. Monro* (primus), Scottish anatomist]. Interventricular foramen, passage between third and lateral ventricles; porta or foramen interventriculare.

foramina,—*plu.* of foramen.

foraminate (fōrām'īnāt) *a.* [L. *foramen*, opening.] Pitted; having foramina or perforations.

foraminiferous (fôräm'ínif'ërüs) *a.* [L. *foramen*, opening; *ferre*, to carry.] Having foramina; containing shells of Foraminifera.

forb (fôr'b) *n.* [Gk. *phorbe*, pasture.] A pasture herb.

forceps (fôr'sëps) *n.* [L. *forceps*, tongs.] The clasper-shaped anal cercus of some insects; large fighting or seizing claw of crabs and lobsters; fibres of corpus callosum curving into frontal and occipital lobes.

forcipate (fôr'sipât) *a.* [L. *forceps*, tongs.] Resembling forceps, or forked like forceps.

forcipulate (fôrsip'ülât) *a.* [*Dim.* of L. *forceps*, tongs.] Shaped like a small forceps; *appl.* asteroid pedicellariae.

fore-brain,—prosencephalon, *q.v.*

foremilk,—colostrum, *q.v.*

forespore,—early stage in endospore formation, in bacteria.

forfex (fôr'fëks) *n.* [L. *forfex*, shears.] A pair of anal organs which open and shut transversely, occurring in certain insects.

forficate (fôr'fikât) *a.* [L. *forfex*, shears.] Deeply notched.

forficiform (fôr'fis'ifôrm) *a.* [L. *forfex*, shears; *forma*, form.] Scissor-shaped; *appl.* type of forcipulate pedicellariae.

forma (fôr'mâ) *n.* [L. *forma*, shape.] Form; taxonomic unit consisting of individuals that differ from those of a larger unit by a single character; smallest category in botanical classification.

formation (fôrmâ'shün) *n.* [L. *forma*, shape.] Structure arising from an accumulation of deposits; the vegetation proper to a definite type of habitat; production.

formative (fôr'mätiv) *a.* [L. *forma*, shape.] Plastic; *appl.* matter which is living and developable.

formicarian (fôr'mikâ'riän) *a.* [L. *formica*, ant.] *Pert.* ants; *appl.* plants which attract ants by means of sweet secretions.

formicarium (fôr'mikâ'riüm) *n.* [L. *formica*, ant.] Ants' nest, parti-

cularly an artificial arrangement for purposes of study; fornicary.

fornicated (fôr'nikät'ëd) *a.* [L. *fornicatus*, vaulted.] Concave within, convex without; arched.

fornices,—*plu.* of fornix.

fornix (fôr'niks) *n.* [L. *fornix*, vault.] An arched recess, as between eyelid and eye-ball, or between vagina and cervix uteri; an arched sheet of white longitudinal fibres beneath corpus callosum; scutum of Cheilostomata; one of arched scales in the orifice of some flowers.

fossa (fôs'ä) *n.* [L. *fossa*, ditch.] A pit or trench-like depression.

fosse (fôs) *n.* [L. *fossa*, ditch.] A fossa; a circular groove formed by upper part of parapet in sea-anemones.

fossette (fösët') *n.* [F. *fossette*, small pit, from L. *fossa*, ditch.] A small pit or depression; a socket containing base of antennule in arthropods; groove for resilum in bivalve shells; depression on grinding surface of a tooth.

fossil (fôs'il) *n.* [L. *fossilis*, dug up.] Petrified animal or plant, or portion thereof, as found in rocks.

fossiliferous (fôs'ilif'ërüs) *a.* [L. *fossilis*, dug up; *ferre*, to carry.] Containing fossils.

fossorial (fösö'riäl) *n.* [L. *fossor*, digger.] Adapted for digging; *appl.* animals, claws, feet.

fossula (fôs'ülâ) *n.* [*Dim.* of L. *fossa*, ditch.] A small fossa; small pit with reduced septa on one side of a corallite cup in Rugosa.

fossulate (fôs'ülât) *a.* [*Dim.* of L. *fossa*, ditch.] With slight hollows or grooves.

fossulet (fôs'ülët) *n.* [*Dim.* of L. *fossa*, ditch.] A long narrow depression.

fourchette (foorshët') *n.* [F. *fourchette*, fork.] Furcula of birds; frog of equine hoof; frenulum of labia minora.

fovea (fô'vëä) *n.* [L. *fovea*, depression.] A small pit, fossa, or depression; a small hollow at leaf base

- in Isoëtes, containing a sporangium; pollinium base in orchids.
- fovea centralis**,—central and thinnest part of macula lutea, without rods and with long and slender cones.
- fovea dentis**,—facet on atlas, for articulation with dens of axis.
- foveal** (fō'vēäl) *a.* [L. *fovea*, depression.] *Pert.* fovea; *pert.* fovea centralis; *appl.* cone vision. *Opp.* extrafoveal.
- foveate** (fō'vēāt) *a.* [L. *fovea*, depression.] Pitted.
- foveola** (fōvē'ölä) *n.* [L. *foveola*, small depression.] A small pit; a shallow cavity in bone; a small depression just above fovea in leaf of Isoëtes.
- foveolae opticae**,—two pigmented areas in depressions of neural plate of amphibian embryo, the primordia of eyes.
- foveolate** (fōv'ēölät) *a.* [L. *foveola*, small depression.] Having regular small depressions.
- foveole**,—foveola.
- fraenulum**,—*see* frenulum.
- fraenum**,—*see* frenum.
- fragmentation** (fräg'mēntā'shūn) *n.* [L. *frangere*, to break.] Division into small portions; nuclear division by simple splitting; amitosis.
- fraternal**,—dizygotic, *appl.* twins.
- free** (frē) *a.* [A.S. *freo*, acting at pleasure.] Motile; unattached; distinct; separate.
- free central placentation**,—axile placentation, fixation of ovules to central axis of ovary.
- free-martin**,—a sterile female twin-born with a male.
- frenate** (frē'nāt) *a.* [L. *frenare*, to bridle.] Having a frenum or frenulum.
- frenulum** (frēn'ülūm) *n.* [L. *frenulum*, *dim.* of *frenum*, bridle.] A fold of membrane, as of tongue, clitoris, etc.; a process on hind-wing of Lepidoptera for attachment to fore-wing; a thickening of sub-umbrella of certain Scyphomedusae.
- frenum** (frē'nūm) *n.* [L. *frenum*, bridle.] A frenulum; a fold of integument at junction of mantle and body of Cirripedia, ovigerous in Pedunculata; also fraenum.
- frigofuge** (frīg'ōfūj) *n.* [L. *frigus*, cold; *fugere*, to flee.] An organism which does not tolerate cold.
- frond** (frōnd) *n.* [L. *frons*, leafy branch.] A leaf, especially of fern or palm; thallus of certain sea-weeds; leaf-like thalloid shoot, as of lichen.
- frondescence** (frōndēs'ēns) *n.* [L. *frondescere*, to put forth leaves.] Development of leaves.
- frons** (frōnz) *n.* [L. *frons*, forehead.] Forehead; or comparable structure.
- frontal** (frūn'täl) *a.* [L. *frons*, forehead.] In region of forehead; *appl.* artery, vein, lobe, convolution; *appl.* head-organ of nemertines; a prostomial ridge of polychaetes; palps of certain nereids; specialised feeding surface in certain ciliates; ganglion, gland, and pore in insects; *appl.* plane at right angles to median longitudinal or sagittal plane. *n.* A frontal scale in reptiles; frontal bone.
- frontalis** (frōntä'līs) *n.* [L. *frons*, forehead.] Frontal part of the scalp muscle or epicranium.
- frontocerebellar fibres**,—fibres passing from frontal region to cerebellum.
- frontoclypeus** (frūn'tōklip'ēüs) *n.* [L. *frons*, forehead; *clypeus*, shield.] Frons and clypeus fused, in insects.
- fronto-ethmoidal**,—*pert.* frontal and ethmoidal bones; *appl.* suture.
- frontonasal** (frūn'tōnā'zäl) *a.* [L. *frons*, forehead; *nasus*, nose.] *Pert.* forehead or frontal region and nose; *appl.* ducts and process.
- frontoparietal** (frūn'tōpäri'ētäl) *a.* [L. *frons*, forehead; *paries*, wall.] *Pert.* frontal and parietal bones; *appl.* suture: the coronal suture; *cf.* parietofrontal.
- frontosphenoidal** (frūn'tōsfēnoid'äl) *a.* [L. *frons*, forehead; Gk. *sphen*, wedge; *eidos*, form.] *Pert.* frontal

and sphenoid bones; *appl.* a process of zygomatic bone articulating with frontal.

fructification (frük'tifikā'shūn) *n.* [L. *fructus*, fruit; *facere*, to make.] Fruit formation; fruit-body; any spore-producing structure in cryptogams.

fructose (frük'tōs) *n.* [L. *fructus*, fruit.] Fruit-sugar; laevulose; $C_6H_{12}O_6$.

frugivorous (froojiv'örūs) *a.* [L. *frux*, fruit; *vorare*, to devour.] Fruit-eating; *appl.* certain animals.

fruit (froot) *n.* [F. *fruit*, from L. *fructus*, fruit.] The fertilised and developed ovary of a plant.

fruit-body,—the spore-bearing structure, as a sporangiocarp, basidiocarp, conidiocarp.

fruit-spot,—sorus, as of ferns.

frustose (frūs'tōs) *a.* [L. *frustum*, piece.] Cleft into polygonal pieces; covered with markings resembling cracks.

frustule (frūs'tūl) *n.* [L. *frustulum*, small fragment.] The siliceous two-valved shell and protoplasm of a diatom.

frutescent (frootēs'ënt) *a.* [L. *frutex*, shrub.] Becoming shrub-like; fruticose, *q.v.*

frutex (froot'tēks) *n.* [L. *frutex*, shrub.] Shrub.

fruticose (froot'itkōs) *a.* [L. *fruticosa*, bushy.] Like a shrub; *appl.* thallus of certain lichens.

fruticulose (frootik'ülōs) *a.* [*Dim.* of L. *fruticosus*, bushy.] Like a small shrub.

fuscivorous (fūsiv'örūs) *a.* [L. *fucus*, seaweed; *vorare*, to devour.] *Appl.* seaweed-eating animals.

furoid (fū'koid) *a.* [L. *fucus*, seaweed; Gk. *eidos*, form.] *Pert.* or resembling seaweed.

fucosan (fū'kōsān) *n.* [L. *fucus*, seaweed.] Product of carbon-assimilation in brown seaweeds.

fucoxanthin (fū'kōzān'thīn) *n.* [L. *fucus*, seaweed; Gk. *xanthos*, yellow.] The main carotenoid pigment of brown algae; $C_{40}H_{56}O_6$.

fugacious (fūgā'shūs) *a.* [L. *fugax*,

fleeting.] Evanescent; falling off early; caducous; *appl.* petals, etc.

fulcral (fūl'krāl) *a.* [L. *fulcrum*, support.] *Pert.* or acting as a fulcrum; *appl.* triangular plates aiding in movement of stylets in Hymenoptera.

fulcrate (fūl'krāt) *a.* [L. *fulcrum*, support.] Having a fulcrum.

fulcrum (fūl'krūm) *a.* [L. *fulcrum*, support.] A supporting organ such as a tendril or stipule; sporophore in lichens; plate supporting rami of incus in mastax of rotifers; the lower surface of a ligula; a chitinous structure in base of insect rostrum; hinge-line of brachiopods; spine-like scale on anterior fin-rays of many ganoids.

fulturae (fūltū'rē) *n. plu.* [L. *fultura*, prop.] A pair of sclerites supporting the hypopharynx in myriopods. *Sing.* fultura.

function (fūngk'shūn) *n.* [L. *functio*, performance.] The action proper to any organ or part.

functional (fūngk'shōnāl) *a.* [L. *functio*, performance.] Acting normally; acting or working part of an organ as distinct from remainder

fundament,—primordium, *q.v.*

fundamentum,—hypocotyl, *q.v.*

fundatrix (fūndā'triks) *n.* [L. *fundare*, to found.] Stem mother, a female founding a new colony by oviposition; *appl.* Aphides.

fundic (fūn'dik) *a.* [L. *fundus*, bottom.] *Pert.* a fundus; *appl.* cells of stomach.

fundiform (fūn'difōrm) *a.* [L. *funda*, sling; *forma*, shape.] Looped; *appl.* a ligament of penis.

fundus (fūn'dūs) *n.* [L. *fundus*, bottom.] The base of an organ, as of stomach, urinary bladder, etc.; boundary between underground and above-ground portions of plant axis.

fungicolous (fūnjik'ölūs) *a.* [L. *fungus*, mushroom; *colere*, to inhabit.] Living in or on fungi.

fungiform (fün'jiförm) *a.* [L. *fungus*, mushroom; *forma*, shape.] Fungoid or shaped like a fungus; *appl.* tongue papillae.

fungine (fün'jin) *n.* [L. *fungus*, mushroom.] Chitinous substance forming cell-wall of fungi.

fungistatic (fün'jistät'ik) *a.* [L. *fungus*, mushroom; Gk. *statikos*, causing to stand.] Inhibiting the development of fungi.

fungivorous (fünjiv'örüs) *a.* [L. *fungus*, mushroom; *vorare*, to devour.] *Appl.* fungus-eating animals and plants.

fungous (füng'güs) *a.* [L. *fungus*, mushroom.] With character or consistency of fungus; fungoid.

funicle (fū'nīkl) *n.* [L. *funiculus*, small cord.] An ovule stalk; a slender strand attaching peridiolum to peridium; a small cord or band, as of nerve fibres; a large double strand of cells passing from aboral end of coelom to aboral wall of zoecium of Molluscoidea; also funiculus.

funicular (fünik'ülär) *a.* [L. *funiculus*, small cord.] Consisting of a small cord or band; *pert.* a funiculus or funicle.

funiculus (fünik'ülüs) *n.* [L. *funiculus*, small cord.] A funicle, *q.v.*; one of the ventral, lateral, and dorsal columns of white matter of the spinal cord.

funiform (fū'niförm) *a.* [L. *funis*, rope; *forma*, shape.] Like a cord or rope.

funnel (fün'el) *n.* [L. *fundere*, to pour.] Siphon of cephalopods.

funnelform (fün'elförm) *a.* [L. *fundere*, to pour; *forma*, shape.] Widening gradually from a narrow base; infundibuliform.

furca (fūr'kä) *n.* [L. *furca*, fork.] The apophysis or entothorax of insect metathorax; forked intercoxal plate, as in Copepoda.

furcal (fūr'käl) *a.* [L. *furca*, fork.] Forked; *appl.* a branching nerve of lumbar plexus.

furcasternum (fūr'kästēr'nüm) *n.* [L. *furca*, fork; *sternum*, breast-bone.]

Forked poststernite or sternellum in many insects.

furcate (fūr'kät) *a.* [L. *furca*, fork.] Branching like prongs of a fork.

furciferous (fursif'ërüs) *a.* [L. *furca*, fork; *ferre*, to carry.] Bearing a forked appendage, as some insects.

furcula (fūr'külä) *n.* [L. *furcula*, *dim.* of *furca*, fork.] A forked process or structure; the merry-thought bone; a transverse ridge in embryonic pharynx, giving rise to epiglottis; partially fused abdominal appendages forming springing organ in Collembola.

furred (förd) *a.* [O.F. *forre*, sheath.] Having short decumbent hairs thickly covering the surface.

fuscine (fūs'sin) *n.* [L. *fuscus*, dusky.] A brown pigment in retinal epithelium.

fuseau (füzō) *n.* [F. *fuseau*, from L. *fusus*, spindle.] A spindle-shaped structure; a spindle-shaped, thick-walled spore divided by septa, in certain fungi; a fusiform macroconidium.

fusi (fū'zi) *n. plu.* [L. *fusus*, spindle.] In spiders, organs composed of two retractile processes which issue from mammulae and form threads.

fusiform (fū'ziförm) *a.* [L. *fusus*, spindle; *forma*, shape.] Spindle-shaped; tapering gradually at both ends; *appl.* innermost layer of cerebral cortex; *appl.* a gyrus of temporal lobe.

fusion-nucleus,—central nucleus of embryo-sac formed by fusion of odd nuclei from each end.

fusocellular (fū'zösel'ülär) *a.* [L. *fusus*, spindle; *cellula*, small room.] Having, or *pert.*, spindle-shaped cells.

fusulae (fū'zülē) *n. plu.* [*Dim.* of L. *fusus*, spindle.] Spools, minute tubes of spinneret.

G

galactase (gäläk'täs) *n.* [Gk. *gala*, milk.] An enzyme, trypsin-like in action, found in milk.

galactin (gäläk'tin) *n.* [Gk. *gala*, milk.] The prepituitary lactogenic hormone, prolactin; a polysaccharide occurring in certain plants, *e.g.* in lupin.

galactoblast (gäläk'töbläst) *n.* [Gk. *gala*, milk; *blastos*, bud.] A fat-containing globule or colostrum corpuscle in mammary acini.

galactophorous (gäl'äktöf'örüs) *a.* [Gk. *gala*, milk; *pherein*, to carry.] Lactiferous; *appl.* ducts of mammary glands.

galactose (gäläk'tös) *n.* [Gk. *gala*, milk.] A sugar found as a constituent of various carbohydrates in plants, and of lactose and certain glycolipids and glycoproteins in animals.

galactosis (gäl'äktö'sis) *n.* [Gk. *gala*, milk.] Milk secretion.

galactotropic (gäläk'tötröp'ik) *a.* [Gk. *gala*, milk; *trope*, turn.] Stimulating milk secretion; *appl.* hormone: prolactin, *q.v.*

galbulus (gäl'bülüs) *n.* [L. *galbulus*, cypress nut.] A modified cone with fleshy scales, as in cypress.

galea (gäl'ä) *n.* [L. *galea*, helmet.] A helmet-shaped petal, or other similarly-shaped structure; episcranial aponeurosis, the galea aponeurotica, of the scalp muscle or occipitofrontalis; galea capitis, thin sheath covering head of spermatozoon; outer division of stipes or endopodite of first maxilla of insects, itself divided into basigalea and distigalea; a prominence of movable digit of chelicerae in Pseudoscorpiones.

galeate (gäl'äät) *a.* [L. *galeatus*, helmeted.] Helmet-shaped; hooded.

Galen, veins of [*Galen*, Greek physician]. Internal cerebral veins and great cerebral vein formed by their union.

galeriform (gälë'riförm) *a.* [L. *galerum*, hide-cap; *forma*, form.] Shaped like a cap.

gall (gôl) *n.* [A.S. *gealla*, gall.] Bile, secretion of liver. [L. *galla*, gall-nut.] An excrescence on plants, caused by fungi, mites, and insects,

especially by Cynipidae and Cecidomyiidae; cecidium.

gall - bladder, — pear - shaped or spherical sac which stores bile.

galloxanthin (gälöžän'thin) *n.* [L. *gallus*, cock; Gk. *xanthos*, yellow.] Carotenoid pigment associated with retinal cones in domestic fowl.

galvanotaxis (gäl'vănötäk'sis), **galvanotropism** (gäl'vănöt'röpizm) *n.* [L. *Galvani*, Italian physiologist.] Response or reaction to electrical stimulus.

gametal (gämë'täl) *a.* [Gk. *gametes*, spouse.] *Pert.* a gamete; reproductive.

gametangiogamy (gämët'anjjö-g'ämi) *n.* [Gk. *gametes*, spouse; *angeion*, vessel; *gamos*, marriage.] The union of gametangia.

gametangium (gäm'ëtän'jüm) *n.* [Gk. *gametes*, spouse; *angeion*, vessel.] A structure producing sexual cells.

gametes (gämëts') *n. plu.* [Gk. *gametes*, spouse.] Cells derived from gametocytes which conjugate and form zygotes; sexual cells.

gametic (gämët'ik) *a.* [Gk. *gametes*, spouse.] *Pert.* gamete; *appl.* a mutation occurring before maturation of gamete; *appl.* linkage.

gametids (gämë'tidz) *n. plu.* [Gk. *gametes*, spouse.] Primary sporoblasts destined to become gametes.

gametoblast (gämë'töbläst) *n.* [Gk. *gametes*, spouse; *blastos*, bud.] Plasson; formulative substance.

gametocyst (gämë'tösist) *n.* [Gk. *gametes*, spouse; *kystis*, bladder.] Cyst surrounding two associated free forms in sexual reproduction of gregarines.

gametocyte (gämë'tösit) *n.* [Gk. *gametes*, spouse; *kytos*, hollow.] The mother-cell of a gamete.

gametogamy (gämëtög'ämi) *n.* [Gk. *gametes*, spouse; *gamos*, marriage.] The union of gametes; syngamy.

gametogenesis (gämë'töjën'ësis) *n.* [Gk. *gametes*, spouse; *genesis*, origin.] Gamete formation; gametogeny.

gametogenic (gāmē'tōjēn'ík) *a.* [Gk. *gametes*, spouse; *genos*, descent.] Arising from spontaneous changes in chromosomes of gametes; *appl.* variation.

gametogonium (gāmē'tōgō'nīum) *n.* [Gk. *gametes*, spouse; *gonos*, offspring.] A cell producing a gamete, a gametocyte.

gametoid (gāmē'toid) *n.* [Gk. *gametes*, spouse; *eidōs*, form.] A structure behaving like a gamete, as apocytes uniting to form a zygote.

gametokinetic (gāmē'tōkinēt'ík) *a.* [Gk. *gametes*, spouse; *kinein*, to move.] Stimulating gamete formation; *appl.* hormones, as follicle-stimulating hormone or prolactin.

gametophore (gāmē'tōfōr) *n.* [Gk. *gametes*, spouse; *pherein*, to bear.] A special part of a gametophyte on which gametangia are borne; a hyphal outgrowth which fuses with a similar neighbouring outgrowth to form a zygospore.

gametophyll (gāmē'tōfil) *n.* [Gk. *gametes*, spouse; *phyllon*, leaf.] A modified leaf bearing sexual organs; a micro- or macro-sporophyll.

gametophyte (gāmē'tōfit) *n.* [Gk. *gametes*, spouse; *phyton*, plant.] The gamete-forming phase in alternation of plant generations; haplophyte; sexual generation of plants; pollen grain and embryo-sac; *cf.* sporophyte.

gametospore (gāmē'tōspōr) *n.* [Gk. *gametes*, spouse; *sporos*, seed.] A sporidium or spore that unites with another by means of a bridging structure.

gamic (gām'ík) *a.* [Gk. *gamos*, marriage.] Fertilised.

gammation (gāmā'shūn) *n.* [Gk. *gammation*, *dim.* of *gamma*.] An angular bar beside the branchial arches of Palaeospondylus.

gamobium (gāmō'bīum) *n.* [Gk. *gamos*, marriage; *bios*, life.] The sexual generation in alternation of generations, *opp.* agamobium.

gamocyst (gām'ōsist) *n.* [Gk. *gamos*, marriage; *kystis*, bladder.] Oocyst, or sporocyst.

gamodeme (gām'ōdēm) *n.* [Gk. *gamos*, marriage; *demos*, people.] A deme forming a relatively isolated intrabreeding community.

gamodesmic (gām'ōdēs'mík) *a.* [Gk. *gamos*, marriage; *desma*, bond.] Having the vascular bundles fused together instead of separated by connective tissue.

gamogastrous (gām'ōgās'trūs) *a.* [Gk. *gamos*, marriage; *gaster*, belly.] *Appl.* a pistil formed by union of ovaries, but with styles and stigmata free.

gamogenesis (gām'ōjēn'ēsīs) *n.* [Gk. *gamos*, marriage; *genesis*, descent.] Sexual reproduction.

gamogenetic (gām'ōjēnēt'ík) *a.* [Gk. *gamos*, marriage; *genesis*, descent.] Sexual; reproduced from union of sex elements.

gamogony (gāmōg'ōnī) *n.* [Gk. *gamos*, marriage; *gone*, descent.] Sporogony in protozoa.

gamones (gām'ōnz) *n. plu.* [Gk. *gamos*, marriage.] Secretions of gametes, which act on gametes of the opposite sex; androgamones and gynogamones.

gamont (gāmōnt') *n.* [Gk. *gamos*, marriage; *on*, being.] A sporont.

gamopetalous (gām'ōpēt'ālūs) *a.* [Gk. *gamos*, marriage; *petalon*, leaf.] With coherent petals; sym-petalous.

gamophase (gām'ōfāz) *n.* [Gk. *gamos*, marriage; *phasis*, aspect.] The haploid phase of a life-cycle; haplophase; *cf.* zygophase.

gamophyllous (gām'ōfil'ūs) *a.* [Gk. *gamos*, marriage; *phyllon*, leaf.] With united perianth leaves; monophyllous.

gamosepalous (gām'ōsēp'ālūs) *a.* [Gk. *gamos*, marriage; *sepal*, sepal.] With coherent sepals; monosepalous.

gamostele (gām'ōstē'lē) *n.* [Gk. *gamos*, marriage; *stela*, pillar.] Stele formed from fusion of several steles.

gamostelic (gām'ōstē'lik) *a.* [Gk. *gamos*, marriage; *stela*, pillar.] *Appl.* condition in which steles of a polystelic stem are fused together.

gamostely (gãm'östē'li) *n.* [Gk. *gamos*, marriage; *stèle*, pillar.] The arrangement of polystelic stems when the separate steles are fused together surrounded by pericycle and endodermis.

gamotropism (gãmõt'röpízm) *n.* [Gk. *gamos*, union; *trope*, turn.] Tendency to mutual attraction, exhibited by movements of gametes.

ganglia,—*plu.* of ganglion.

gangliar (gãng'gliär) *a.* [Gk. *ganglion*, little tumour.] *Pert.* a ganglion or ganglia.

gangliate (gãng'gliät) *a.* [Gk. *ganglion*, little tumour.] Having ganglia.

gangliform (gãng'gliförm) *a.* [Gk. *ganglion*, little tumour; *L. forma*, shape.] In the form of a ganglion.

ganglioblast (gãng'gliöbläst) *n.* [Gk. *ganglion*, little tumour; *blastos*, bud.] Mother-cell of gangliocyte.

gangliocyte (gãng'gliösit) *n.* [Gk. *ganglion*, little tumour; *kytos*, hollow.] A ganglion cell outside the central nervous system.

ganglioid (gãng'glioid) *a.* [Gk. *ganglion*, little tumour; *eidos*, form.] Like a ganglion.

ganglion (gãng'gliön) *n.* [Gk. *ganglion*, little tumour.] A mass of nerve cell bodies and giving origin to nerve fibres; a nerve centre.

ganglionated (gãng'gliönät'ëd) *a.* [Gk. *ganglion*, little tumour.] Supplied with ganglia; gangliate.

ganglioneural (gãng'gliönü'räl) *a.* [Gk. *ganglion*, little tumour; *neuron*, nerve.] *Appl.* a system of nerves, consisting of a series of ganglia connected by nerve strands.

ganglioneuron (gãng'gliönü'rön) *n.* [Gk. *ganglion*, little tumour; *neuron*, nerve.] A nerve cell of a ganglion.

ganglionic (gãng'gliön'ik) *a.* [Gk. *ganglion*, little tumour.] *Pert.*, consisting of, or in neighbourhood of a ganglion; *appl.* layer of retina, arteries, arterial system of brain.

ganglioplexus (gãng'gliöp'lëk'süs) *n.* [Gk. *ganglion*, little tumour; *L. plexus*, braided.] A diffuse ganglion.

ganoblast (gãn'öbiäst) *n.* [Gk. *ganos*, sheen; *blastos*, bud.] An ameloblast.

ganoid (gãn'oid) *a.* [Gk. *ganos*, sheen; *eidos*, form.] *Appl.* scales of ganoid fishes, rhomboidal, joined like parquetry and consisting of a layer of bone with superficial enamel.

ganoine (gãn'öin) *n.* [Gk. *ganos*, sheen.] The outer layer of a ganoid scale, formed by the corium; enamel-like substance in formation of ameloblasts; ganoin.

gape (gäp) *n.* [A.S. *geapan*, to open wide.] The distance between the open jaws of birds, fishes, etc.

garland cells,—a chain of nephrocytes, in Diptera.

garland stage,—stage of garland-like arrangement of chromatin at poles of nucleus in prophase of meiosis.

Gärtner's canal,—longitudinal duct of epophoron, representing mesonephric duct, alongside the uterus and in lateral wall of vagina.

gas gland,—glandular portion of air-bladder of fishes.

Gaskell's bridge (*W. H. Gaskell*, English physiologist). Atrio-ventricular bundle; bundle of His.

Gasserian ganglion [*A. P. Gasser*, German anatomist]. The semilunar ganglion on sensory root of fifth cranial nerve.

gastero,—*also* gastro.

gasteromycetous (gäs'tërömisē'tüs) *a.* [Gk. *gaster*, stomach; *mykes*, mushroom.] Having the spores developed in a gleba within a peridium.

gasterospore (gäs'tëröspör) *n.* [Gk. *gaster*, stomach; *sporos*, seed.] A thick-walled globular spore formed within a fruit-body.

gastraea (gästrē'ä) *n.* [Gk. *gaster*, stomach.] A hypothetical gastrula-like animal; the ancestral metazoan, according to Haeckel.

gastraeum (gästrē'üm) *n.* [Gk. *gaster*, stomach.] Ventral side of body.

gastral (gäs'träl) *a.* [Gk. *gaster*, stomach.] *Pert.* stomach, as gastral cavity, cortex, layer, etc.

gastralia (gästrä'liä) *n. plu.* [Gk. *gaster*, stomach.] Microscleres in the gastral membranes of Hexactinellida; abdominal ribs, as in some reptiles.

gastric (gäs'trik) *a.* [Gk. *gaster*, stomach.] *Pert.* or in region of stomach; *appl.* arteries, glands, nerves, veins.

gastrin (gäs'trīn) *n.* [Gk. *gaster*, stomach.] A hormone secreted by pyloric mucosa and which stimulates gastric secretion.

gastro,—also *gastero*.

gastrocentrous (gäs'trösēn'trūs) *a.* [Gk. *gaster*, stomach; *kentron*, centre.] *Appl.* vertebrae with centra formed by pairs of inter-ventralia, while the basiventralia are reduced.

gastrocnemius (gäs'tröknē'miūs) *n.* [Gk. *gaster*, stomach; *kneme*, tibia.] Large muscle of calf of leg.

gastrocoel (gäs'trösēl) *n.* [Gk. *gaster*, stomach; *koilos*, hollow.] The archenteron of a gastrula.

gastrocolic (gäs'trököl'ik) *a.* [Gk. *gaster*, stomach; *kolon*, gut.] *Pert.* stomach and colon; *appl.* ligament, the greater omentum.

gastrocutaneous (gäs'trökütā'nēūs) *a.* [Gk. *gaster*, stomach; L. *cutis*, skin.] *Appl.* pores leading from intestine to surface in Hemichorda.

gastrocystis (gäs'trösis'tis) *n.* [Gk. *gaster*, stomach; *kystis*, bladder.] Blastocyst.

gastrodermis (gäs'trödēr'mis) *n.* [Gk. *gaster*, stomach; *derma*, skin.] Enteroblast.

gastroduodenal (gäs'trödūödē'nāl) *a.* [Gk. *gaster*, stomach; L. *duodeni*, twelve each.] *Pert.* stomach and duodenum; *appl.* an artery.

gastroepiploic (gäs'tröēpiplō'ik) *a.* [Gk. *gaster*, stomach; *epiploon*, omentum.] *Pert.* stomach and great omentum; *appl.* arteries, veins.

gastrointestinal (gäs'tröintēs'tināl) *a.* [Gk. *gaster*, stomach; L. *intestinum*, gut.] *Pert.* stomach and intestines.

gastrolial (gäs'tröliē'nāl) *a.* [Gk. *gaster*, stomach; L. *lien*, spleen.] *Pert.* stomach and spleen; *appl.* ligament; gastrosplenic.

gastrolith (gäs'trölith) *n.* [Gk. *gaster*, stomach; *lithos*, stone.] A mass of calcareous matter found on each side of gizzard of crustaceans before a moult.

gastroparietal (gäs'tröpäri'ētāl) *a.* [Gk. *gaster*, stomach; L. *paries*, wall.] *Pert.* stomach and body wall.

gastrophrenic (gäs'tröfrēn'ik) *a.* [Gk. *gaster*, stomach; *phren*, midriff.] *Pert.* stomach and diaphragm; *appl.* ligament.

gastropod (gäs'tröpöd) *n.* [Gk. *gaster*, stomach; *pous*, foot.] A mollusc with ventral muscular disc adapted for creeping; *gasteropod*.

gastropores (gäs'tröpörz) *n. plu.* [Gk. *gaster*, stomach; *poros*, channel.] The larger pores, for nutrient persons, of hydroid corals.

gastropulmonary (gäs'tröpül'mönäri) *a.* [Gk. *gaster*, stomach; L. *pulmo*, lung.] *Pert.* stomach and lungs.

gastrosplenic (gäs'trösplēn'ik) *a.* [Gk. *gaster*, stomach; *splen*, spleen.] *Pert.* stomach and spleen; *gastrolial*.

gastrostege (gäs'tröstēj) *n.* [Gk. *gaster*, stomach; *stege*, roof.] A ventral scale of snakes.

gastrovascular (gäs'tröväs'külār) *a.* [Gk. *gaster*, stomach; L. *vasculum*, small vessel.] Serving both digestive and circulatory purposes, as canals of some Coelentera.

gastrozoid (gäs'trözō'id) *n.* [Gk. *gaster*, stomach; *zoon*, animal; *eidos*, form.] In coelenterate colonies, the nutrient person with mouth and tentacles; trophozooid in some tunicates.

gastrula (gäs'troolā) *n.* [Gk. *gaster*, stomach.] The cup- or basin-shaped structure formed by invagination of a blastula.

gastrulation (gäs'troolā'shūn) *n.* [Gk. *gaster*, stomach.] Formation of gastrula from blastula by invagination.

geitonogamy (gi'tōnōg'āmī) *n.* [Gk. *geiton*, neighbour; *gamos*, marriage.] Fertilisation of a flower by another from the same plant.

gelatigenous (jēl'ātij'ēnūs) *a.* [L. *gelare*, to congeal; Gk. *-genes*, producing.] Gelatine-producing.

gelatine (jēl'ātīn) *n.* [L. *gelare*, to congeal.] A jelly-like substance obtained from animal tissue.

gelatinous (jēlāt'inūs) *a.* [L. *gelare*, to congeal.] Jelly-like in consistency.

geminate (jēm'ināt) *a.* [L. *gemi*, twins.] Growing in pairs; binate; paired; *appl.* species or subspecies: corresponding forms in corresponding but separate regions, as reindeer and caribou.

gemi (jēm'inī) *n. plu.* [L. *gemi*, twins.] Bivalent chromosomes; pairs of paternal and maternal chromosomes at parasynesis.

geminiflorous (jēm'iniflō'rūs) *a.* [L. *gemi*, twins; *flos*, flower.] *Appl.* a plant whose flowers are arranged in pairs.

gemma (jēm'ā) *n.* [L. *gemma*, bud.] A bud or outgrowth of a plant or animal which develops into a new organism; a leaf-bud, *opp.* flower-bud; a chlamydospore, *q.v.*; a hypothetical unit, *q.v.*

gemmaeous (jēmā'shūs) *a.* [L. *gemma*, bud.] *Pert.* gemmae or buds.

gemma-cup,—cyathus, *q.v.*

gemmate (jēm'āt) *a.* [L. *gemma*, to bud.] Having buds.

gemmation (jēmā'shūn) *n.* [L. *gemma*, bud.] Budding; bud-formation by means of which new independent individuals are developed in plants and animals; arrangement of buds.

gemmiferous (jēmif'erūs) *a.* [L. *gemma*, bud; *ferre*, to bear.] Bud-bearing; gemmate.

gemmiform (jēm'ifōrm) *a.* [L. *gemma*, bud; *forma*, shape.] Shaped like a bud; *appl.* pedicellariae of echinoderms.

gemmiparous (jēmip'ārūs) *a.* [L. *gemma*, bud; *parere*, to pro-

duce.] Reproducing by bud-formation.

gemmulation (jēm'ulā'shūn) *n.* [L. *gemma*, little bud.] Gemmule-formation.

gemma (jēm'ul) *n.* [L. *gemma*, little bud.] A pangen; a moss bud; one of the internal buds of Porifera arising asexually and coming into activity on death of parent organism; one of the minute protoplasmic processes on branch of a dendrite, contact point in synapse.

gena (jē'nā) *n.* [L. *gena*, cheek.] The cheek or side part of head; antero-lateral part of prosoma of trilobites, and of insect head.

genal, *pert.* the cheek; *appl.* facial suture and to caeca of stomach of trilobites; *appl.* angle of cheek.

gene (jēn) *n.* [Gk. *genos*, descent.] A unit hereditary factor in the chromosome; also gen; regarded as multiple, composed of genomeres; *cf.* cistron.

gene flow,—the spreading of genes resulting from outcrossing and from subsequent crossing within a group; genorheithrum, *q.v.*

gene mutation,—a heritable variation caused by changes at a particular locus; point-mutation.

genecology (jēn'ēkōl'ōji) *n.* [Gk. *genos*, descent; *oikos*, household; *logos*, discourse.] Ecology in relation to genetics.

Gené's organ [C. G. Gené, Italian zoologist]. Subscutal or cephalic gland secreting a viscid substance used in transferring eggs to dorsal surface, in ticks.

geneogenous (jēnēōj'ēnūs) *a.* [Gk. *genea*, birth; *gennaein*, to produce.] Congenital.

geneology (jēn'ēōl'ōji) *n.* [Gk. *genos*, descent; *logos*, discourse.] The study of development of individual and race; embryology and palaeontology combined.

genera,—*plu.* of genus.

generalised (jēn'erālīz'd) *a.* [L. *generalis*, of one kind.] Combining characteristics of two or more groups, as in many fossils.

generation (jĕn'ĕrā'shŭn) *n.* [L. *generatio*, reproduction.] Production; formation; the individuals of a species equally remote from a common ancestor.

generative (jĕn'ĕrātĭv) *a.* [L. *generare*, to beget.] Concerned in reproduction; *appl.* smaller of two cells into which a pollen grain primarily divides.

generative ferment,—a specific substance, present in small quantities in blood, necessary for formation of gonadial internal secretions.

generator cell,—a cell including a dikaryon, which gives rise to aecidiospore mother-cells or to probasidia.

generic (jĕnĕr'ĭk) *a.* [L. *genus*, race.] Common to all species of a genus; *pert.* a genus.

generitype (jĕnĕr'ĭtĭp) *n.* [L. *genus*, race; *typus*, image.] The typical species of a genus.

genesiology (jĕn'ĕsĭōl'ojĭ) *n.* [Gk. *genesis*, descent; *logos*, discourse.] Science dealing with reproduction.

genesis (jĕn'ĕsĭs) *n.* [Gk. *genesis*, descent.] Formation, production, or development of a cell, organ, individual, or species.

genetic (jĕnĕ'tĭk) *a.* [Gk. *genesis*, descent.] *Pert.* genesis; *pert.* genetics.

genetic factor,—gene. *q.v.*

genetic spiral,—in spiral phyllotaxis, imaginary spiral line following points of insertion of successive leaves.

genetics (jĕnĕt'ĭks) *n.* [Gk. *genesis*, descent.] That part of biology dealing with heredity and variation.

genotype,—genotype.

genial (jĕn'ĭāl) *a.* [Gk. *geneion*, chin.] *Pert.* the chin; *appl.* chin-plates of reptiles; *appl.* tubercles on inside of mandible, for insertion of genioglossal and geniohyoid muscles.

genic (jĕn'ĭk) *a.* [Gk. *genos*, descent.] *Pert.* genes.

genic balance,—harmonious interaction of genes.

genicular (jĕnik'ŭlār) *a.* [L. *geniculum*, little knee.] *Pert.* region of the knee; *appl.* arteries, etc., *pert.* geniculum.

geniculate (jĕnik'ŭlāt) *n.* [L. *geniculum*, little knee.] Bent like a knee-joint; *appl.* antenna; *pert.* geniculum, *appl.* a ganglion of the facial nerve; *appl.* bodies, lateral and medial corpora geniculata, constituting the metathalamus; having upper part of filament forming an angle more or less obtuse with lower.

geniculation (jĕnik'ŭlā'shŭn) *n.* [L. *geniculum*, little knee.] A knee-like joint or flexure.

geniculum (jĕnik'ŭlŭm) *a.* [L. *geniculum*, little knee.] Sharp bend in a nerve; part of the facial nerve in temporal bone where it turns abruptly towards stylo-mastoid foramen.

genioglossal (jĕn'ĭōglōs'āl) *a.* [Gk. *geneion*, chin; *glossa*, tongue.] Connecting chin and tongue; *appl.* muscle; geniohyoglossal.

geniohyoid (jĕn'ĭōhĭ'oid) *a.* [Gk. *geneion*, chin; *hyoeides*, T-shaped.] *Pert.* chin and hyoid; *appl.* muscles.

genital (jĕn'ĭtāl) *a.* [L. *gignere*, to beget.] *Pert.* the region of reproductive organs; *appl.* corpuscles, glands, ridge, tubercle, veins, etc.

genitalia (jĕn'ĭtālĭā) *n. plu.* [L. *gignere*, to beget.] Genitals, the organs of reproduction, especially the external organs.

genito-anal (jĕn'ĭtōā'nāl) *a.* [L. *gignere*, to beget; *anus*, vent.] In the region of genitalia and anus.

genitocrural (jĕn'ĭtōkroo'rāl) *a.* [L. *gignere*, to beget; *crus*, leg.] In the region of genitalia and thigh; *appl.* a nerve originating from first and second lumbar nerves.

genito-enteric (jĕn'ĭtōĕntĕr'ĭk) *a.* [L. *gignere*, to beget; Gk. *enteron*, gut.] *Pert.* genitalia and intestine.

genitofemoral (jĕn'ĭtōfĕm'ōrāl) *a.* [L. *gignere*, to beget; *femur*, thigh-bone.] Genitocrural.

genitourinary,—see urinogenital.

genitoventral (jĕn'itōvĕn'trāl) *a.* [L. *gignere*, to beget; *venter*, belly.] *Appl.* plate formed by fused epigynial and ventral sclerites, in certain Acarina.

Gennari's band [F. *Gennari*, Italian anatomist]. A layer of white fibres in middle cell-lamina of cerebral cortex, especially of occipital lobe; line of Gennari.

genoblast (jĕn'ōblāst) *n.* [Gk. *genos*, offspring; *blastos*, bud.] A mature germ-cell exclusively male or female.

genoholotype (jĕn'ōhōl'ōtīp) *n.* [Gk. *genos*, race; *holos*, whole; *typos*, image.] A species defined as typical of its genus.

genome (jĕn'ōm) *n.* [Gk. *genos*, offspring.] Minimum group or set of chromosomes derived from a zygote or gamete; *genom*.

genomere (jĕn'ōmĕr) *n.* [Gk. *genos*, offspring; *meros*, part.] A unit of a gene, regarded as a multiple.

genonema (jĕn'ōnĕ'mā) *n.* [Gk. *genos*, descent; *nema*, thread.] Axial thread on which genes are located in chromosome; axoneme; chromonema; a chromatid in its genetical aspect.

genonomy (jĕnōn'ōmī) *n.* [Gk. *genos*, descent; *nomos*, law.] The study of laws of relationships with reference to classification of organisms.

genophenes (jĕn'ōfĕnz) *n. plu.* [Gk. *genos*, offspring; *phainein*, to appear.] Reaction types of the same genotype.

genorheithrum (jĕn'ōrĕ'thrūm) *n.* [Gk. *genos*, descent; *rheithron*, stream.] The passage or descent of genes in phylogenesis.

genosome (jĕn'ōsōm) *n.* [Gk. *genos*, descent; *soma*, body.] The part of the chromosome bearing the locus of a gene.

genospecies (jĕn'ōspĕ'shēz) *n.* [Gk. *genos*, race; L. *species*, particular kind.] A species consisting of individuals having the same genotype.

genosyntype (jĕnōsīn'tīp) *n.* [Gk. *genos*, race; *syn*, with; *typos*,

image.] A series of species together defined as typical of their genus.

genotype (jĕn'ōtīp) *n.* [Gk. *genos*, race; *typos*, image.] Genetic or factorial constitution of an individual; group of individuals possessing the same genetic constitution; biotype; genoplast; type species of a genus, *genotype*.

genotypic (jĕn'ōtīp'īk) *a.* [Gk. *genos*, race; *typos*, image.] *Pert.* genotype; *appl.* characters arising from hereditary endowment.

genovariation,—point mutation, *q.v.*

genu (jĕn'ū) *n.* [L. *genu*, knee.] Knee; segment between femur and tibia in some Acarina; a knee-like bend in an organ or part; anterior end of corpus callosum.

genus (jĕ'nūs) *n.*, **genera** (jĕn'ērā) *plu.* [L. *genus*, race.] A group of closely related species, in classification of plants or animals.

genys (jĕn'īs) *n.* [Gk. *genys*, jaw.] Lower jaw.

geobionts (jĕ'ōbīōnts) *n. plu.* [Gk. *ge*, earth; *bion*, living.] Organisms permanently inhabiting the soil.

geobios (jĕ'ōbī'ōs) *n.* [Gk. *ge*, earth; *bios*, life.] Terrestrial life; edaphon, *q.v.*

geoblast (jĕ'ōblāst) *n.* [Gk. *ge*, earth; *blastos*, bud.] A germinating plumule of which the cotyledons remain underground.

geobotany,—plant geography, phytogeography.

geocarpic (jĕ'ōkār'pīk) *a.* [Gk. *ge*, earth; *karpos*, fruit.] Having the fruits maturing underground.

geocryptophyte (jĕ'ōkrīp'tōfīt) *n.* [Gk. *ge*, earth; *kryptos*, hidden; *phyton*, plant.] A plant with dormant parts underground; geophyte.

geology (jĕōl'ōjī) *n.* [Gk. *ge*, earth; *logos*, discourse.] The science dealing with structure, activities, and history of the earth.

geomalism (jĕōm'ālīzm) *n.* [Gk. *ge*, earth; *malos*, level.] Response to the influence of gravitation; horizontal habitus.

geonastic (jēōnās'tik) *a.* [Gk. *ge*, earth; *nastos*, pressed.] Curving towards the ground.

geonemy (jēōn'ēmī) *n.* [Gk. *ge*, earth; *nemein*, to inhabit.] The geographical distribution of organisms; biogeography; chorology.

geophilous (jēōf'ilūs) *a.* [Gk. *ge*, earth; *philein*, to love.] Living in or on the earth.

geophyte (jē'ōfit) *n.* [Gk. *ge*, earth; *phyton*, plant.] A land plant; a plant with dormant parts (tubers, bulbs, rhizomes) underground.

geosere (jē'ōsēr) *n.* [Gk. *ge*, earth; L. *serere*, to put in a row.] A sere originating on a clay substratum.

geotaxis (jē'ōtāk'sis) *n.* [Gk. *ge*, earth; *taxis*, arrangement.] Locomotor response to gravity.

geotonus (jēōt'ōnūs) *n.* [Gk. *ge*, earth; *tonos*, tension.] Normal position in relation to gravity.

geotropism (jēōt'rōpizm) *n.* [Gk. *ge*, earth; *trope*, turn.] Tendency to respond to stimulus of gravity, usually positive, by turning downwards, as in growth of a root.

gephyrocercal (jēf'rōsēr'kāl, jēf'i'rōsēr'kāl) *a.* [Gk. *gephyra*, bridge; *kērkos*, tail.] *Appl.* secondary diphyrcercal caudal fin brought about by reduction of extreme tip of heterocercal or homocercal fin.

geratology (jēr'ātōl'ōji) *n.* [Gk. *geras*, old age; *logos*, discourse.] Study of the factors of decadence and old age of populations; *cf.* gerontology.

germ (jěrm) *n.* [L. *germen*, bud.] A unicellular micro-organism; a seed; a bud; a developing egg.

germ band,—primitive streak, of early embryo.

germ-cell,—a reproductive cell, *opp.* somatic cell; a primitive male or female element.

germ-centre,—an area of lymph-corpuscle division in nodules of lymph gland tissue.

germ-disc,—a small green cellular plate of the germ tube of liverworts; *cf.* germinal disc.

germ gland,—gonad.

germ-layer,—an early differentiated layer of cells.

germ nucleus,—an egg or sperm nucleus.

germ plasm,—idioplasm, the physical basis of inheritance.

germ pore,—the exit pore of a germ tube in the spore integument.

germ stock,—stolon of tunicates.

germ theory,—biogenesis; the theory that living organisms can be produced or developed only from living organisms.

germ track,—lineage of zygote in developing organism; continuity of germ cells.

germ tube,—short filamentous tube put forth by a germinating spore.

germ vitellarium,—an organ, of platyhelminths, producing both ova and vitelline material.

germ yolk gland,—in some Rhabdo-coelida, an embryonic structure consisting of fertile portion of egg and a sterile portion which functions as a yolk gland feeding the fertile portion.

germarium (jěrmā'riūm) *n.* [L. *germen*, bud.] An ovary; distal portion of an ovariole.

germen (jěrm'ēn) *n.* [L. *germen*, bud.] A mass of undifferentiated cells, the primary form of germ cells.

germiduct (jěrm'idūkt) *n.* [L. *germen*, bud; *ducere*, to lead.] Oviduct, of trematodes.

germigen (jěrm'ijēn) *n.* [L. *germen*, bud; *generare*, to beget.] Ovary, of trematodes.

germinal (jěrm'ināl) *a.* [L. *germen*, bud.] *Pert.* a seed, a germ-cell, or reproduction.

germinal bands,—two sets of rows of cells in early development of annulates.

germinal cells,—the cells concerned in reproduction, set apart early in embryonic life.

germinal centres,—areas of lymph-cell production within nodules of lymphoid tissue, as of lymph nodes, of tonsils, and in splenic corpuscles.

germinal disc,—the disc-like area of an egg yolk on which segmentation first appears; blastodisc.

germinal epithelium,—the layer of columnar epithelial cells covering the stroma of an ovary.

germinal layers,—primary layers of cells in a developing ovum: epiblast, hypoblast, and later, mesoblast; histogens, *q.v.*

germinal lid,—operculum of a pollen-grain.

germinal spot,—the nucleolus of an ovum.

germinal vesicle,—the nucleus of an ovum before formation of polar bodies.

germination (jër'mînă'shün) *n.* [L. *germen*, bud.] Beginning of growth; budding; sprouting; development.

germination hormone,—substance formed in endosperm of Gramineae and which stimulates growth of the coleoptile and inhibits that of the root; blastanin.

germiparity (jër'mipär'iti) *n.* [L. *germen*, bud; *parere*, to beget.] Reproduction by germ-formation.

germogen (jër'möjën) *n.* [L. *germen*, bud; Gk. *genos*, offspring.] The central cell of gastrula-like phase, or infusorigen, in development of Rhombozoa; the residual nucleus, or unused portion, after formation of rhombogen by division of primary germogen or primitive central cell.

gerontal (jërôn'täl) *a.* [Gk. *geron*, old man.] Senile.

gerontic (jërôn'tik) *a.* [Gk. *geron*, old man.] *Pert.* old age; gerontal; *appl.* stage in phylogeny.

gerontology (jër'öntöl'öji) *n.* [Gk. *geron*, old man; *logos*, discourse.] The study of senescence and senility; geratology, *q.v.*

gestalt (gěstält') *n.* [Ger. *Gestalt*, form.] Organised or unified response to an arrangement of stimuli; co-ordinated movements or configuration of motor reactions; a mental process considered as an organised pattern, involving explanation of parts in terms of the whole; a pattern considered in

relation to background or environment; *appl.* morphology irrespective of taxonomic relationships.

gestation (jěstă'shün) *n.* [L. *gestare*, to bear.] The intra-uterine period in development of an embryo.

giant cells,—large nerve-cells in annelids; myeloplaxes; osteoclasts, large multinuclear protoplasmic masses found in marrow, spleen; megakaryocytes, *q.v.*; Langhans' cells, *q.v.*; Betz cells, *q.v.*; gigantocytes.

giant chromosomes,—polytene or large chromosomes, as in salivary gland cells of larval Diptera.

giant fibres,—greatly enlarged and modified nerve-fibres running longitudinally through ventral nerve cord of some invertebrates.

Gianuzzi, crescents of,—see crescents.

gibberellins (jīb'erēl'inz) *n. plu.* [*Gibberella*, a fungal genus.] Metabolic products of *Gibberella fujikuroi*, and in flowering plants, which stimulate growth in coleoptiles and shoots, gibberellic acid being a growth factor complementary to auxins.

gibbous (gīb'ūs) *a.* [L. *gibbus*, hump.] Inflated; saccate or pouched, as the lateral sepals of Cruciferae; gibbose.

gigantocyte (jīgăn'tösīt) *n.* [Gk. *gigas*, giant; *kytos*, hollow.] Giant cell, *q.v.*

gill (gil) *n.* [M.E. *gille*, gill.] A plate-like or filamentous outgrowth; respiratory organ of aquatic animals; radial lamella on under side of pileus of agarics.

gill arch,—part of visceral skeleton in region of functional gills; branchial arch.

gill basket,—the branchial skeleton of lampreys, composed of continuous cartilage.

gill book,—the respiratory organ of certain Palaeostraca, consisting of a large number of leaf-like structures between which water circulates.

gill cleft,—a branchial cleft formed on side of pharynx.

gill cover,—an operculum.

gill helix,—a spirally coiled gill-like organ in certain Clupeidae.

gill plume,—the gill or ctenidium of the majority of Gasteropoda.

gill pouch,—an oval pouch containing gills and communicating directly or indirectly with exterior, as in Myxine and Petromyzon.

gill rakers,—small spine-like structures attached in a single or double row to branchial arches, preventing escape of food.

gill remnants,—epithelial, post-branchial, or suprapericardial bodies arising in pharynx of higher vertebrates.

gill rods,—gelatinous rods supporting the pharynx in Cephalochorda; branchial rays in certain fishes.

gill slits,—a series of perforations leading from pharynx to exterior, persistent in lower vertebrates, embryonic in higher.

gill trama,—the structure between the hymenial layers of a gill, as in agarics.

gingival (jinji'vål) *a.* [L. *gingivae*, gums.] *Pert.* the gums.

ginglymoid (ging'glimoid) *a.* [Gk. *gingglymos*, hinge-joint; *eidos*, form.] Constructed like a hinge-joint.

ginglymus (ging'glimüs) *n.* [Gk. *gingglymos*, hinge-joint.] An articulation constructed to allow of motion in one plane only.

Giraldès' organ [*J. A. C. C. Giraldès*, Portuguese surgeon]. The paradidymis.

girdle (gër'dl) *n.* [A.S. *gyrdan*, to gird.] In appendicular skeleton, the supporting structure at shoulder and hip, each consisting typically of one dorsal and two ventral elements; spicule-bearing portion of mantle not covered by shell-plates in Polyplacophora; transverse groove in Dinoflagellata, containing transverse flagellum and separating epicone and hypocone; the cingulum of diatoms.

girdle bundles,—leaf-trace bundles which girdle the stem and converge

at the leaf insertion, as in Cycadales.

girdle scar,—a series of scale scars on axis of bud.

gito-,—geito-.

gizzard (giz'ård) *n.* [O.F. *gezier*, gizzard.] Muscular grinding chamber of alimentary canal of various animals; proventriculus of insects.

glabella (gläbél'ä) *n.* [L. *glaber*, bald.] The space on forehead between superciliary ridges; the elevated median region of cephalic shield of Trilobita.

glabrate (glä'brät) *a.* [L. *glaber*, smooth.] Becoming hairless; glabrescent; with a nearly smooth surface.

glabrous (glä'brüs) *a.* [L. *glaber*, smooth.] With a smooth, even surface; without hairs.

glacial (glä'siäl) *a.* [L. *glacies*, ice.] *Pert.* or *appl.* the Pleistocene epoch of the Quaternary period, characterised by periodic glaciation.

gladiate (gläd'iät) *a.* [L. *gladius*, sword.] Shaped like a sword; ensiform.

gladiolus (glädi'ölüs, gläd'iölüs) *n.* [L. *gladiolus*, small sword.] The mesosternum or corpus sterni.

gladius (gläd'iüs) *n.* [L. *gladius*, sword.] The pen or chitinous shell in Chondrophora; *cf.* phragmone, sepion.

glairine (glä'rën) *n.* [F. *glaire*, white of egg.] Glairy film found or thermal springs and formed by pectic zoogloea.

gland (gländ) *n.* [L. *glans*, acorn.] Single cell or mass of cells specialised for elaboration of secretions either for use in the body or for excretion; glans.

gland cell,—an isolated secreting cell; a cell of glandular epithelium.

glandula (glän'dulä) *n.* [L. *glandula*, small acorn.] A gland; one of the bundles of hyphae ending in basidia with a viscous secretion appearing as spots on the surface of the stipe of certain fungi; a glutinous

gland subserving cohesion of pol-
linia; arachnoid granulation on
outer surface of dura mater.

glandula vesiculosa, — seminal
vesicle.

glandulae Pacchionii, — arachnoid-
eal granulations or Pacchionian
bodies, *q.v.*

glandular (glăn'dülär) *a.* [L. *glan-
dula*, small acorn.] With or *pert.*
glands; with secreting function.

glandular epithelium, — the tissue of
glands, composed of polyhedral,
columnar, or cubical cells whose
protoplasm contains or elaborates
the material to be secreted.

glandular tissue, — tissue of single
or massed cells, parenchymatous
and filled with granular protoplasm,
adapted for secretion of aromatic
substances in plants.

glandule, — *glandula*.

glandulose - serrate (glăn'dülös-
sēr'ät) *a.* [L. *glandula*, small acorn;
serratus, sawn.] Having the serra-
tions tipped with glands.

glans (gläns) *n.* [L. *glans*, acorn.]
A nut; a hard, dry, indehiscent one-
celled fruit, as an acorn; a gland;
the glans penis; the glans
clitoridis.

glareal (glä'rëäl) *a.* [L. *glarca*,
gravel.] *Pert.*, or growing on, dry
gravelly ground.

Glaserian fissure [*J. H. Glaser*,
Swiss anatomist]. Petrotympenic
fissure.

glaucous (glösës'ënt) *a.* [L. *glau-
cus*, sea-green.] Somewhat glaucous.

glaucous (glök'ús) *a.* [L. *glaucus*,
sea-green.] Bluish green; covered
with a pale green bloom.

gleba (glë'bä) *n.* [L. *gleba*, clod.]
The central part of the sporophore
in certain fungi; the spore-forming
apparatus in certain plants.

gleba chamber, — peridiolum, *q.v.*

glebula (glë'bülä) *n.* [L. *glebula*,
small clod.] A small prominence
on a lichen thallus.

glenohumeral (glë'nöhü'mëräl) *a.*
[Gk. *glene*, socket; L. *humerus*,
humerus.] *Pert.* glenoid cavity and
humerus; *appl.* ligaments.

glenoid (glë'noid) *a.* [Gk. *glene*,
socket; *eidos*, form.] Like a
socket; *appl.* cavity into which
head of humerus fits, the mandib-
ular fossa, and various ligaments.

glenoidal labrum, — a fibro-cartilagi-
nous rim attached round the margin
of glenoid cavity and of aceta-
bulum.

glia (glë'ä, glī'ä) *n.* [Gk. *glia*, glue.]
Glial cell; neuroglia cell, a support-
ing cell of nervous tissue.

gliadin (glī'ädin) *n.* [Gk. *glia*,
glue.] A substance interacting with
glutenin to form gluten in cereals;
the prolamine of wheat and rye
seeds; formerly, any prolamine.

gliding growth, — *see* sliding growth.

gliosomes (glī'ösözm) *n. plu.* [Gk.
glia, glue; *soma*, body.] Granules
in protoplasm of neuroglia, possibly
in relation with mitochondria.

Glisson's capsule [*F. Glisson*,
English physician]. A fibrous
capsule within liver, enclosing hep-
atic artery, portal vein, lymphatic
vessels, and bile duct.

globate (glö'bät) *a.* [L. *globus*,
globe.] Globe-shaped; globular.

globigerina ooze, — sea-bottom mud
which is largely composed of shells
of Foraminifera.

globin (glö'bín) *n.* [L. *globus*, globe.]
The basic protein constituent of
haemoglobin.

globoid (glö'boid) *n.* [L. *globus*,
globe; Gk. *eidos*, form.] A
spherical body in aleurone grains, a
double phosphate of calcium and
magnesium.

globose (glö'bös') *a.* [L. *globus*,
globe.] Spherical or globe-shaped;
globular.

globule (glö'bül) *n.* [L. *globulus*,
small globe.] Any minute spherical
structure; the antheridium of
Characeae; globulus.

globulin (glö'bülín) *n.* [L. *globus*,
globe.] A protein, insoluble in
water, such as fibrinogen, vitellin,
crystallin, legumin.

globulose (glö'bülös) *a.* [L. *globus*,
globe.] Spherical; consisting of,
or containing globules.

globulus (glöb'ülüs) *n.* [L. *globulus*, small globe.] A globule; spherical or club-shaped sensory organ at bifurcation of antenna in Pauro-poda.

globus major and minor,—head and tail of epididymis.

globus pallidus,—part of lentiform nucleus of corpus striatum.

glochidiate (glökid'iat) *a.* [Gk. *glochis*, arrow-point.] Furnished with barbed hairs.

glochidium (glökid'iüm) *n.* [Gk. *glochis*, arrow-point; *idion*, *dim.*] Hairs bearing barbed processes seen on massulae of certain rhizocarps; the larva of fresh-water mussels such as Unio and Anodon.

gloea (glē'ä) *n.* [Gk. *gloia*, gluc.] An adhesive secretion of some protozoa.

gloeocystidium (glē'ösistid'iüm) *n.* [Gk. *gloios*, sticky; *kystis*, bag; *idion*, *dim.*] A cystidium containing a slimy or oily substance.

glomera,—*plu.* of glomus.

glomera carotica,—carotid bodies, *q.v.*

glomerular (glömër'ülär) *a.* [L. *glomus*, ball.] *Pert.* or like a glomerulus.

glomerulate (glömër'ülät) *a.* [L. *glomus*, ball.] Arranged in clusters.

glomerule (glöm'erül) *n.* [L. *glomus*, ball.] A condensed cyme of almost sessile flowers; a compact cluster.

glomeruliferous (glömër'ülif'erüs) *a.* [L. *glomus*, ball; *ferre*, to carry.] Having the flowers arranged in glomerules.

glomerulus (glömër'ülüs) *n.* [L. *glomus*, ball.] Network of capillary blood-vessels; inturned portion of a Bowman's capsule; oval body terminating olfactory fibres in rhinencephalon; a mass of interlacing intracapsular dendrites, in sympathetic ganglia; excretory organ of Enteropneusta; a small mass of spores; a glomerule.

glomus (glöm'müs) *n.* [L. *glomus*, ball.] A number of glomeruli run together; coccygeal and carotid bodies, consisting largely of chrom-affin cells.

glossa (glös'ä) *n.* [Gk. *glossa*, tongue.] A tongue-like projection in middle of labium of insects.

glossal (glös'al) *a.* [Gk. *glossa*, tongue.] *Pert.* the tongue.

glossarium (glösä'rיום) *n.* [Gk. *glossa*, tongue.] The slender-pointed glossa of certain Diptera.

glossate (glös'ät) *a.* [Gk. *glossa*, tongue.] Having a tongue or tongue-like structure.

glosso-epiglottic (glös'öpiglöt'ik) *a.* [Gk. *glossa*, tongue; *epi*, upon; *glotta*, tongue.] *Pert.* tongue and epiglottis; *appl.* folds of mucous membrane.

glossohyal (glös'öhi'al) *n.* [Gk. *glossa*, tongue; *hyooides*, T-shaped.] Median basihyal of fishes; entoglossum.

glosso-kinaesthetic area,—a brain area in Broca's convolution immediately connected with speech.

glossopalatine (glös'öpäl'ätin) *a.* [Gk. *glossa*, tongue; L. *palatus*, palate.] Connecting tongue and soft palate; *appl.* arch, muscle.

glossophagine (glösöf'äjin) *a.* [Gk. *glossa*, tongue; *phagein*, to eat.] Securing food by means of the tongue.

glossopharyngeal (glös'öfärin'jeäl) *a.* [Gk. *glossa*, tongue; *pharynx*, gullet.] *Pert.* tongue and pharynx; *appl.* ninth cranial nerve.

glossophorous (glösöf'örüs) *a.* [Gk. *glossa*, tongue; *pherein*, to bear.] Having a tongue or a radula.

glossopodium (glös'öpö'diüm) *n.* [Gk. *glossa*, tongue; *pous*, foot.] The sheathing leaf-base of Isoetes.

glossotheca (glös'öthē'kä) *n.* [Gk. *glossa*, tongue; *theke*, box.] The proboscis-covering part of pupal integument of insects.

glottis (glöt'is) *n.* [Gk. *glotta*, tongue.] The opening into the windpipe.

glucagon (glöök'ägön) *n.* [Gk. *glykys*, sweet; *agon*, contest.] A pancreatic hormone which stimulates glycogenolysis in the liver, causing increase in blood-sugar; hyperglycaemic - glycogenolytic factor.

glucase (glook'ās) *n.* [Gk. *glykys*, sweet.] A plant enzyme which produces grape sugar from maltose.

glucokinin (glook'ōkī'nīn) *n.* [Gk. *glykys*, sweet; *kinein*, to move.] A plant substance capable of reducing blood-sugar; 'vegetable insulin'.

glucoproteins,—*see* glycoproteins.

glucose (glook'ōs) *n.* [Gk. *glykys*, sweet.] The grape sugar of plants and animals; dextrose, $C_6H_{12}O_6$.

gluma (gloom'ā) *n.* [L. *gluma*, husk.] A bract at base of a grass inflorescence or spikelet; a chaffy or membranous bract; empty glume, *opp.* flowering glume or lemma.

glumaceous (gloomā'shūs) *a.* [L. *gluma*, husk.] Dry and scaly like glumes; formed of glumes.

glume,—*gluma*, *q.v.*; lemma, *q.v.*

glumiferous (gloomif'ērūs) *a.* [L. *gluma*, husk; *ferre*, to bear.] Bearing or producing glumes.

glumiflorous (gloom'iflō'rūs) *a.* [L. *gluma*, husk; *flos*, flower.] Having flowers with glumes or bracts at their bases.

glutaecal (glootē'āl) *a.* [Gk. *gloutos*, buttock.] *Pert.* or in region of buttocks; *appl.* arteries, muscles, nerves, tuberosity, veins.

glutaeus (glootē'ūs) *n.* [Gk. *gloutos*, buttock.] A muscle of the buttock.

glutathione (gloot'āthi'ōn) *n.* [L. *gluten*, glue; Gk. *theon*, sulphur.] A sulphur-containing tri-peptide found in different tissues and capable of being alternately reduced and oxidised; $C_{10}H_{17}O_6N_3S$.

gluten (gloot'ēn) *n.* [L. *gluten*, glue.] A nitrogenous substance obtainable from some cereals, a product of gliadin and glutenin.

glutenin (gloot'ēnīn) *n.* [L. *gluten*, glue.] A substance of cereals interacting with gliadin to form gluten.

glutinous (gloot'inūs) *a.* [L. *gluten*, glue.] Having a sticky or slimy surface.

glycerin (glis'ērīn), **glycerol** (glis'ērōl) *n.* [Gk. *glykys*, sweet.] The sweet principle of natural fats and oils; $C_3H_8(OH)_3$.

glycine (gli'sīn) *n.* [Gk. *glykys*,

sweet.] Amino acetic acid or glyccoll, obtainable from other amino acids, plays part in the formation of creatine and other compounds; $C_2H_5O_2N$.

glycogen (gli'kōjēn) *n.* [Gk. *glykys*, sweet.] A carbohydrate storage product of plants and animals, $(C_6H_{10}O_5)_x$; animal starch.

glycogenase (gli'kōjēnās') *n.* [Gk. *glykys*, sweet; *-genes*, producing.] An enzyme which causes synthesis of storage glycogen in liver.

glycogenesis (gli'kōjēn'ēsis) *n.* [Gk. *glykys*, sweet; *genesis*, origin.] The transformation of glucose into glycogen, as in liver and muscle.

glycogenolysis (gli'kōjēnōl'īsis) *n.* [Gk. *glykys*, sweet; *-genes*, producing; *lysis*, loosening.] The disintegration of glycogen and production of glucose phosphate.

glycolysis (glīkōl'īsis) *n.* [Gk. *glykys*, sweet; *lyein*, to loosen.] Decomposition of glucose or of glycogen, by hydrolysis.

glycophyte (gli'kōfit) *n.* [Gk. *glykys*, sweet; *phyton*, plant.] A plant unable to thrive on substratum containing more than 0.5 per cent. sodium chloride in solution; *opp.* halophyte.

glycoproteins (gli'kōprō'tēinz) *n. plu.* [Gk. *glykys*, sweet; *proteion*, first.] Compounds of protein with a carbohydrate, including mucins and mucoids; mucoproteins.

glycosecretory (gli'kōsēkrē'tōri) *a.* [Gk. *glykys*, sweet; L. *secretus*, set apart.] Connected with the secretion of glycogen.

glycotropic (gli'kōtrōp'ik) *a.* [Gk. *glykys*, sweet; *trope*, turn.] *Appl.* factor secreted by prepituitary and which inhibits peripheral action of insulin; glycotrophic.

gnathic (nāth'ik) *a.* [Gk. *gnathos*, jaw.] *Pert.* the jaw; gnathal.

gnathion (nāth'ion) *n.* [Gk. *gnathos*, jaw.] Lowest point of the median line of the lower jaw.

gnathism (nāth'izm) *n.* [Gk. *gnathos*, jaw.] Formation of jaw with reference to degree of projection.

gnathites (năth'its) *n. plu.* [Gk. *gnathos*, jaw.] The buccal appendages of arthropods.

gnathobase (năth'obās) *n.* [Gk. *gnathos*, jaw; *basis*, base.] An inwardly turned masticatory process on protopodite of appendages near mouth of Crustacea; basal segment of appendages with spines directed toward mouth of Arachnoidea.

gnathochilarium (năth'ōkilā'rīŭm) *n.* [Gk. *gnathos*, jaw; *cheilos*, lip.] First maxillae and sternal plate in Paupoda, united in Diplopoda.

gnathopod (năth'ōpōd) *n.* [Gk. *gnathos*, jaw; *pous*, foot.] Any crustacean limb in oral region modified to assist with food.

gnathopodite (năth'ōpōdit) *n.* [Gk. *gnathos*, jaw; *pous*, foot.] A maxilliped of an arthropod.

gnathos (nă'thōs) *n.* [Gk. *gnathos*, jaw.] A median sclerite on ventral side of ninth tergum in Lepidoptera.

gnathosoma (năth'ōsō'mā) *n.* [Gk. *gnathos*, jaw; *soma*, body.] The mouth region, including oral appendages, of Arachnoidea.

gnathostegites (năthōs'tējits) *n. plu.* [Gk. *gnathos*, jaw; *stēge*, roof.] Pair of covering plates for mouth parts of some crustaceans.

gnathostomatous (năth'ōstōm'ātūs) *a.* [Gk. *gnathos*, jaw; *stoma*, mouth.] With jaws at the mouth.

gnathotheca (năth'ōthē'kā) *n.* [Gk. *gnathos*, jaw; *theke*, case.] The horny outer covering of a bird's lower jaw.

gnathothorax (năth'ōthō'rāks) *n.* [Gk. *gnathos*, jaw; *thorax*, chest.] The part of the cephalothorax posterior to protocephalon, in Malacostraca.

gnesiogamy (nē'siōg'āmī) *n.* [Gk. *gnesios*, lawful; *gamos*, marriage.] Fertilisation by an individual of the same species; intraspecific zygosis.

goblet cells,—mucus-secreting cells of columnar epithelia; chalice cells.

Golgi apparatus or complex [*C. Golgi*, Italian histologist]. Cell-constituents, localised or diffuse, often consisting of separate ele-

ments, the Golgi bodies, batonettes, dictyosomes or pseudochromosomes, containing lipoprotein, and concerned with cellular synthesis and secretion; originally apparatus reticolare, canalicular system, internal reticular apparatus, the reticulum being possibly an artefact.

Golgi, organs of,—Golgi-Mazzoni corpuscles.

Golgi-Mazzoni corpuscles [*C. Golgi* and *V. Mazzoni*, Italian histologists]. Cylindrical end-organs or small Pacinian corpuscles at junction of tendon and muscle.

golgiokinesis (gōl'jōkīnē'sis) *n.* [*C. Golgi*; Gk. *kinesis*, movement.] Division of the Golgi apparatus during mitosis.

golgiosomes (gōl'jōsōmz) *n. plu.* [*C. Golgi*; Gk. *soma*, body.] Golgi bodies or material produced by division of the Golgi apparatus during mitosis.

gomphosis (gōmfō'sis) *n.* [Gk. *gomphos*, bolt.] Articulation by insertion of a conical process into a socket, as of roots of teeth into alveoli.

gonad (gōn'ād) *n.* [Gk. *gone*, birth.] A sexual gland, either ovary, or testes, or ovotestis

gonadectomy (gōn'ādēk'tōmī) *n.* [Gk. *gone*, birth; *ek*, out; *tome*, cutting.] Excision of gonad, castration in the male, spaying in female.

gonadin (gōnā'dīn) *n.* [Gk. *gone*, birth.] Active principle of sex glands controlling secondary sexual characteristics.

gonadotrophins (gōnādōt'rōfinz) *n. plu.* [Gk. *gone*, birth; *trephēin*, to nourish.] Two prepituitary hormones: 1. Follicle-stimulating hormone or prolan A; gametogenetic or gametokinetic hormones; thy-lakentrin. 2. Luteinising or interstitial-cell-stimulating hormone; prolan B; metakentrin. Chorionic gonadotrophin secreted by chorionic cells of placenta and excreted in pregnancy urine, resembling but not identical with luteinising hormone. Serum gonadotrophins:

follicle-stimulating hormone in blood of pregnant mares, luteinising hormone in that of women.

gonadotropic (gõn'ädötröp'ik) *a.* [Gk. *gone*, birth; *trope*, turn.] Affecting the gonad; *appl.* pre-pituitary hormones and certain hormones obtained from urine and other body fluids and tissues, particularly during pregnancy; *appl.* effects; gonadotrophic.

gonadotropin (gõn'ädöt'röp'in) *n.* [Gk. *gone*, birth; *trope*, turn.] Any gonadotropic hormone or substance. **gonaduct**,—gonoduct.

gonal (gõn'äl) *n.* [Gk. *gone*, birth.] *Appl.* middle portion of genital ridge which alone forms functional gonad; gonidial, *q.v.*

gonangium (gõnän'jiüm) *n.* [Gk. *gone*, birth; *anggeion*, vessel.] Any enveloping structure in which reproductive elements are produced; a gonotheca; a dilated cup of perisarc protecting the blastostyle of Calyptoblastea.

gonapod,—gonopodium, *q.v.*

gonapophyses (gõn'äpöf'isēz) *n. plu.* [Gk. *gone*, birth; *apo*, from; *phyein*, to grow] Chitinous outgrowths or valves subserving copulation in insects; the component parts of a sting.

gone (gõn'ē) *n.* [Gk. *gone*, generation.] One of four daughter cells of an auxocyte; the generative portion of a gonad; an organism possessing a gone. *v.* To produce a gone.

gongylidia (gõn'jilid'ia) *n. plu.* [Gk. *gongylos*, round; *idion*, *dim.*] Hyphal swellings or modifications in fungi cultivated by certain ants.

gongylus (gõn'jilūs) *n.* [Gk. *gongylos*, round.] A globular reproductive body, as of certain algae and lichens.

gonia (gõn'niä) *n. plu.* [Gk. *gone*, seed.] Primitive sex cells, spermatogonia or oogonia.

goniale (gõniä'lē) *n.* [Gk. *gonia*, angle.] In some vertebrates a bone of lower jaw beside articular.

gonic (gõn'ik) *a.* [Gk. *gone*, generation.] *Pert.* gones; *pert.* semen.

gonid,—gonidium.

gonidangium (gõn'idän'jiüm) *n.* [Gk. *dim.* of *gone*, seed; *anggeion*, vessel.] A structure producing or containing gonidia.

gonidia (gõnid'ia) *n. plu.* [Gk. *dim.* of *gone*, seed.] Minute reproductive bodies of many bacteria; asexual non-motile reproductive cells produced upon gametophytes; algal constituents of lichens. *Sing.* gonidium.

gonidial,—*pert.* gonidia.

gonidiferous (gõnidif'erūs) *a.* [Gk. *dim.* of *gone*, seed; *L. ferre*, to carry.] Bearing or producing gonidia.

gonidimium (gõn'idim'füm) *n.* [L.L. *dim.* of Gk. *gone*, seed.] A gonidial structure smaller than a gonidium and larger than a gonimium.

gonidiogenous (gõnid'ioj'enūs) *a.* [Gk. *dim.* of *gone*, seed; *-genes*, producing.] Bearing or producing gonidia; gonidiferous.

gonidioid (gõnid'ioid) *a.* [Gk. *dim.* of *gone*, seed; *eidos*, form.] Like a gonidium; *appl.* certain algae.

gonidiophore (gõnid'iofōr) *n.* [Gk. *dim.* of *gone*, seed; *pherein*, to bear.] An aerial hypha supporting a gonidangium.

gonidiophyll (gõnid'iofil) *n.* [Gk. *dim.* of *gone*, seed; *phyllon*, leaf.] A gametophyte leaf bearing gonidia.

gonidium,—*sing.* of gonidia.

gonimic,—gonidial.

gonimium (gõnim'füm) *n.* [Gk. *gonimos*, productive.] One of the bluish-green gonidia of certain lichens.

gonimoblasts (gõn'imöblästs) *n. plu.* [Gk. *gonimos*, productive; *blastos*, bud.] Filamentous outgrowths of a fertilised carpogonium of certain algae.

gonimolobe (gõn'imölōb) *n.* [Gk. *gonimos*, productive; *lobos*, lobe.] A group of carposporangia borne on a gonimoblast.

gonion (gõni'on) *n.* [Gk. *gonia*, angle.] The angle point on the lower jaw.

gonoblast (gõn'öbläst) *n.* [Gk. *gonos*, offspring; *blastos*, bud.] A reproductive cell in animals.

gonoblastid (gõn'õblás'tíd) *n.* [Gk. *gonos*, offspring; *blastos*, bud; *idion*, *dim.*] A blastostyle of Hydrozoa; gonoblastidium.

gonocalyx (gõn'õká'líks) *n.* [Gk. *gonos*, offspring; *kalyx*, cup.] The bell of a medusiform gonophore.

gonochrome (gõn'õkēm) *n.* [Gk. *gonos*, offspring; *ochema*, support.] A medusoid bearing sex-cells, in Hydrozoa.

gonochorism (gõn'õkõ'rízm) *n.* [Gk. *gonos*, offspring; *chorismos*, separation.] The history or development of sex differentiation; sex determination; dioecism.

gonochoristic (gõn'õkõrís'tík) *a.* [Gk. *gonos*, offspring; *choristos*, separated.] Having the sexes separate; producing distinct males and females; dioecious.

gonocoel (gõn'õsēl) *n.* [Gk. *gone*, seed; *kóilos*, hollow.] The cavity containing the gonads.

gonocoxa (gõn'õkõk'sā) *n.* [Gk. *gone*, seed; *L. coxa*, hip.] Base or coxite of a gonopod in insects.

gonocytes (gõn'õsíts) *n. plu.* [Gk. *gone*, seed; *kytos*, hollow.] Sexual cells of sponges; mother-cells of ova and spermatozoa.

gonodendron (gõn'õdēn'drõn) *n.* [Gk. *gonos*, offspring; *dendron*, tree.] A branching blastostyle in Physalia.

gonoduct (gõn'õdúkt) *n.* [Gk. *gonos*, birth; *L. ductus*, led.] A genital duct leading from gonad to exterior.

gonoecium (gõnē'siūm) *n.* [Gk. *gonos*, begetting; *oikia*, house.] A reproductive individual of a polyzoon colony.

gonogenesis (gõn'õjēn'ēsís) *n.* [Gk. *gone*, seed; *genesis*, descent.] Gametogenesis.

gonomery (gõnõm'ēri) *n.* [Gk. *gonos*, descent; *meros*, part.] Theory that paternal and maternal chromosomes remain in separate groups throughout life; separate grouping of paternal and maternal chromosomes during cleavage stages of some organisms.

gononephrotome (gõn'õnēf'rõtõm) *n.* [Gk. *gone*, seed; *nephros*, kidney; *temnein*, to cut.] Embryonic segment containing primordia of the urinogenital system.

gononucleus (gõn'õnū'klēūs) *n.* [Gk. *gonos*, begetting; *L. nucleus*, kernel.] The generative nucleus or micronucleus of many Protozoa.

gonophore (gõn'õfõr) *n.* [Gk. *gone*, seed; *pherein*, to bear.] An elongation of thalamus between corolla and stamens; a reproductive zooid in a hydroid colony.

gonoplasm (gõn'õplāzm) *n.* [Gk. *gone*, seed; *plasma*, mould.] The generative part of protoplasm.

gonopodium (gõn'õpõ'diūm) *n.* [Gk. *gone*, seed; *pous*, foot.] The modified anal fin serving as copulatory organ in male poeciliid fishes; gonopod or clasper of male myriopods and insects.

gonopore (gõn'õpõr) *n.* [Gk. *gone*, seed; *poros*, channel.] Reproductive aperture.

gonosome (gõn'õsõm) *n.* [Gk. *gone*, seed; *soma*, body.] The reproductive zooids of a hydrozoan colony collectively.

gonosphaerium (gõn'õsfē'riūm) *n.* [Gk. *gone*, seed; *sphaira*, globe.] An oosphere.

gonospore (gõn'õspõr) *n.* [Gk. *gonos*, offspring; *sporos*, seed.] A spore produced as consequence of a reduction division.

gonostyle (gõn'õstíl) *n.* [Gk. *gonos*, birth; *stylos*, pillar.] The blastostyle; sexual palpon or siphon of Siphonophora; gonostylus, bristle-like process on gonocoxa of insects; clasper of Diptera.

gonotheca (gõn'õthē'kā) *n.* [Gk. *gonos*, birth; *theke*, cup.] A transparent protective expansion of the perisarc round a blastostyle or gonophore.

gonotokont,—an auxocyte, *q.v.*

gonotome (gõn'õtõm) *n.* [Gk. *gonos*, birth; *temnein*, to cut.] An embryonic segment containing the primordium of the gonad.

gonotrema (gōnōtrēmā) *n.* [Gk. *gonos*, offspring; *trema*, hole.] Genital aperture, as in Arachnida; gonotreme.

gonotype (gōn'ōtīp) *n.* [Gk. *gonos*, offspring; *typos*, pattern.] Immediate offspring of a type specimen.

gonozoid (gōn'ōzō'id) *n.* [Gk. *gonos*, birth; *zoon*, animal; *eidos*, form.] A gonophore or reproductive individual of a hydrozoan colony; a zoid containing a gonad.

gonydial (gōnīd'īāl) *a.* [Gk. *genys*, lower jaw.] *Pert.* a gonys.

gonys (gōn'īs) *n.* [Gk. *genys*, lower jaw.] Lower part or keel of bird's bill.

Götte's larva,—larva with four ciliated lobes, of Polycladida.

Graafian follicle [*R. de Graaf*, Dutch anatomist]. A vesicular capsule in ovary and surrounding an ovum; ovisac with developing ova.

Graber's organ,—a complex larval organ, presumably sensory, in Tabanidae.

gracilis (grās'ilīs) *n.* [L. *gracilis*, slender.] A superficial muscle on medial side of the thigh; a fasciculus of medulla oblongata; nucleus of grey matter ventral to clava.

graduated (grād'ūātēd) *a.* [L. *gradus*, step.] Tapering; becoming longer or shorter by steps.

graft-hybrid,—an individual formed from graft and stock, and showing characteristics of both; graft chimaera.

grain (grān) *n.* [L. *granum*, grain.] The caryopsis or seed of cereals; a granular prominence on the back of a sepal.

graminifolious (grām'inifō'liūs) *a.* [L. *gramen*, grass; *folium*, leaf.] With grass-like leaves.

graminivorous (grām'iniv'örūs) *a.* [L. *gramen*, grass; *vorare*, to eat.] Grass-eating.

graminology,—agrostology.

grammate (grām'āt) *a.* [Gk. *gramme*, line.] Striped; marked with lines or slender ridges.

grana (grā'nā) *n. plu.* [L. *granum*, grain.] Minute particles consisting

of a pile of thin double platelets, probably containing chlorophyll, in chloroplasts.

Grandry's corpuscle [— *Grandry*, Belgian anatomist]. An end-organ of touch, in beak and tongue of birds.

granellae (grānēl'ē) *n. plu.* [L. *dim.* of *granum*, grain.] Oval, refractile granules consisting chiefly of barium sulphate, found in the tubes of certain Sarcodina.

granellarium (grān'ēlā'rīūm) *n.* [L. *dim.* of *granum*, grain.] The system of granellae-containing tubes of Sarcodina.

granose (grān'ōs) *a.* [L. *granum*, grain.] In appearance like a chain of grains, like some insect antennae; moniliform.

granular (grān'ulār) *a.* [L. *granum*, grain.] Consisting of grains or granules; appearing as if made up of granules.

granulation (grān'ulā'shūn) *n.* [L. *granum*, grain.] A grain-like formation or eminence; *appl.* arachnoid elevations or Pacchionian glands on outer surface of dura mater.

granule (grān'ul) *n.* [L. *granulum*, small grain.] A small particle of matter; a small grain.

granule cells,—ovoid or spheroid cells formed of soft protoplasm containing basiphil granules.

granule glands,—the prostate glands of flatworms; skin glands of amphibians.

granules of Nissl,—see Nissl granules.

granulocytes (grān'ulōsīts) *n. plu.* [L. *granulum*, small grain; Gk. *kytos*, cell.] Granular white blood corpuscles or polymorphs; myeloid cells formed in bone marrow.

granum,—*sing.* of grana.

graphiohexaster (grāf'īōhēksās'tēr) *n.* [Gk. *graphis*, style; *hex*, six; *aster*, star.] A hexaster spicule with long outwardly-directed filamentous processes from four rays.

grater (grā'tēr) *n.* [O.F. *grater*, to scrape.] A denticle of Eunice.

graveolent (grāv'ōlēnt) *a.* [L. *graveolens*, strong-smelling.] Having a strong or offensive odour.

gravid (grāv'id) *a.* [L. *gravidus*, loaded.] *Appl.* female with eggs, or pregnant uterus.

graviperception (grāv'ipērsēp'shūn) *n.* [L. *gravis*, heavy; *percipere*, to feel.] Irritability to gravity; geotropic reaction.

gravitational (grāv'itā'shōnāl) *a.* [L. *gravis*, heavy.] *Appl.* water in excess of soil requirements, which sinks under action of gravity and drains away.

gravity (grāv'iti) *n.* [L. *gravitas*, heaviness.] The force of attraction of all bodies towards each other; the tendency of terrestrial bodies to be drawn towards the earth's centre.

gray,—grey.

green glands,—the excretory antennary glands of certain Crustacea.

gregaloid (grēg'āloid) *a.* [L. *grex*, flock; Gk. *eidos*, form.] *Appl.* colony of protozoa of indefinite shape, usually with gelatinous base, formed by incomplete division of individuals or partial union of adults.

gregarious (grēgā'riūs) *a.* [L. *grex*, flock.] Tending to herd together; colonial; growing in clusters.

grey matter,—tissue abundantly supplied with nerve cells, of greyish colour, internal to white matter in spinal cord, external in cerebrum.

grey nerve - fibres,—semitransparent, grey or yellowish-grey, gelatinous non-medullated nerve-fibres, comprising most of the fibres of the sympathetic system and some of the cerebro-spinal; amyelinate fibres.

groin (groin) *n.* [A.S. *grynde*, depression.] The depressed part of body between abdomen and thigh.

groove (groov) *n.* [Dut. *groef*, channel.] Any channel, furrow, or depression, as carotid, costal, optic, primitive vertebral groove.

ground tissue,—*see* conjunctive parenchyma.

growing point,—a part of plant body at which cell-division is localised, generally terminal and composed of meristematic cells.

growth factor G,—vitamin B₂ or riboflavin, *q.v.*

growth hormones,—in animals, growth - promoting pituitary secretions; in plants, auxins.

grumose (groom'ōs) *a.* [L. *grumus*, hillock.] Clotted; knotted; collected into granule masses; grumous.

grumulus (groom'mūlūs) *n.* [*Dim.* of L. *grumus*, hillock.] Polar organ or caudal cell cluster in insect embryo.

gryochrome (grī'ōkrōm) *a.* [Gk. *gry*, morsel; *chroma*, colour.] With Nissl granules irregularly scattered; *appl.* neurones, as in spinal ganglia.

guanase (gwān'ās) *n.* [Peruvian *huanu*, dung.] An enzyme that catalyses the transformation of guanine into xanthine.

guanidine (gwān'idin) *n.* [Peruvian *huanu*, dung.] A substance produced by oxidation of guanine, whose metabolism is regulated by parathyroids; CH₅N₃.

guanine (gwān'in) *n.* [Peruvian *huanu*, dung.] A purine base found in some plants, teleosts, mammals, etc.; C₅H₅ON₅.

guanophore (gwān'ōfōr) *n.* [Peruvian *huanu*, dung; Gk. *pherein*, to bear.] A yellow pigment-bearing cell; an iridocyte.

guanylic (gwān'ilik) *a.* [Peruvian *huanu*, dung.] *Appl.* a nucleic acid, yielding guanine, found in pancreas and liver, also in certain fungi.

guard (gārd) *n.* [O.F. *guarder*, to guard.] Sheath of a phragmocone; rostrum of a belemnite.

guard cells,—cells surrounding stomata of aerial epidermis of plant tissue.

gubernacular (gū'bērnāk'ulār) *a.* [L. *gubernaculum*, rudder.] *Pert.* the gubernaculum.

gubernaculum (gū'bērnāk'ūlūm) *n.* [L. *gubernaculum*, rudder.] A cord stretching from epididymis to scrotal wall; mesocardial ligament; tissue between gum and dental sac of permanent teeth; strands of blastostylar ectoderm between gonophore and gonotheca in Hydro-medusae; a posterior flagellum functioning as a rudder.

Guérin's glands [A. F. M. Guérin, French surgeon]. Para-urethral or Skene's glands.

guest insect,—an insect living or breeding in the nest of another.

gula (gū'lā) *n.* [L. *gula*, gullet.] The upper part of throat; median ventral sclerite of insect head.

gulamentum (gū'lāmēn'tūm) *n.* [L. *gula*, gullet; *mentum*, chin.] Plate formed by fusion of gula and submentum in insects.

gular (gū'lār) *a.* [L. *gula*, gullet.] *Pert.* throat; *appl.* median and lateral plates between rami of mandible in Crossopterygii and Polypterini. *n.* An anterior unpaired horny shield on plastron of Chelonina.

gullet (gūl'ēt) *n.* [O.F. *goulet*, from L. *gula*, gullet.] The oesophagus, a muscular canal extending from mouth cavity to stomach; the canal between cytostome and endoplasm of Ciliata.

gum (gūm) *n.* [L. *gummi*, gum.] An exudation of certain plants and trees; vegetable mucilage.

gummiferous (gūmif'ērūs) *a.* [L. *gummi*, gum; *ferre* to carry.] Gum-producing or exuding.

gummosis (gūmō'sīs) *n.* [L. *gummi*, gum.] Condition of plant tissue when cell-walls become gummy.

gums (gūmz) *n. plu.* [A.S. *goma*, jaws.] Dense fibrous tissues investing jaws; gingivae.

gustatory (gūs'tātōrī) *a.* [L. *gustare*, to taste.] *Pert.* sense of taste; *appl.* cells, hairs, pores, calyculus, nerves, etc.

gut (gūt) *n.* [A.S. *gut*, channel.] Intestine or part thereof, according to structure of animal.

gutta (gūt'ā) *n.* [L. *gutta*, drop.] A

small spot of colour on insect wing or elsewhere. [Mal. *gatah*, gum.] Latex of various trees in Malaya; main constituent of gutta-percha and balata.

guttate (gūt'āt) *a.* [L. *gutta*, drop.] Having drop-like markings.

guttation (gūtā'shūn) *n.* [L. *gutta*, drop.] Formation of drops of water on plants from moisture in air; exudation of aqueous solutions, as through hydathodes, or by sporangiophores, or by nectaries.

guttiferous (gūtīf'ērūs) *a.* [L. *gutta*, drop; *ferre*, to carry.] Having or yielding drops; exuding a resin or gum.

guttiform (gūt'ifōrm) *a.* [L. *gutta*, drop; *forma*, shape.] Drop-like; in the form of a drop.

guttula (gūt'ūlā) *n.* [L. *guttula*, small drop.] Droplet; a small drop-like spot.

guttulate (gūt'ūlāt) *a.* [L. *guttula*, small drop.] In the form of a small drop, as markings.

guttulose,—covered with, or containing, droplets.

gymnanthous (jīm'nān'thūs) *a.* [Gk. *gymnos*, uncovered; *anthos*, flower.] With no floral envelope; achlamydeous.

gymnetrous (jīm'nē'trūs) *a.* [Gk. *gymnos*, naked; *etron*, abdomen.] Without an anal fin.

gymnoarian (jīm'nōā'riān) *a.* [Gk. *gymnos*, naked; *oarion*, small egg.] *Appl.* gonads when naked, or not enclosed in coelomic sacs. *Opp.* cystoarian.

gymnoblasic (jīm'nōblās'tik) *a.* [Gk. *gymnos*, naked; *blastos*, bud.] Without hydrothecae and gonothecae; *appl.* certain Coelenterata.

gymnocarpic (jīm'nōkār'pik) *a.* [Gk. *gymnos*, uncovered; *karpos*, fruit.] With naked fruit; *appl.* lichens with uncovered apothecia, mosses with expanded hymenium; gymnocarpous.

gymnocidium (jīm'nōsid'fūm) *n.* [Gk. *gymnos*, uncovered; *oikos*, house; *idion*, dim.] A basal swelling of certain moss capsules.

gymnocyte (jim'nōsit) *n.* [Gk. *gymnos*, uncovered; *kytos*, hollow.] A cell without a defining cell-wall, *opp.* leucocyte.

gymnocytoide (jim'nōsītōd) *n.* [Gk. *gymnos*, naked; *kytos*, hollow; *eidos*, form.] Cytode without cell-wall or nucleus.

gymnogenous (jimnōj'ēnūs) *a.* [Gk. *gymnos*, naked; *genos*, offspring.] Naked when born; *appl.* birds.

gymnogynous (jimnōj'inūs) *a.* [Gk. *gymnos*, naked; *gyne*, female.] With exposed ovary.

gymnoplast (jim'nōpläst) *n.* [Gk. *gymnos*, naked; *plastos*, formed.] Protoplasm without definite formation or cell-wall.

gymnopterous (jimnōp'tērūs) *a.* [Gk. *gymnos*, naked; *pteron*, wing.] Having bare wings, without scales; *appl.* insects.

gymnorhinal (jim'nōrī'nāl) *a.* [Gk. *gymnos*, naked; *rhis*, nose.] With nostril region not covered by feathers, as in some birds.

gymnosomatous (jim'nōsō'mātūs) *a.* [Gk. *gymnos*, naked; *soma*, body.] Having no shell or mantle, as certain molluscs.

gymnospermous (jimnōspēr'mūs) *a.* [Gk. *gymnos*, uncovered; *sperma*, seed.] Having seeds not enclosed in a true ovary, as conifers.

gymnospore (jim'nōspōr) *n.* [Gk. *gymnos*, naked; *sporos*, seed.] A naked germ or spore not enclosed in a protective envelope.

gymnostomatous (jim'nōstōm'ātūs) *a.* [Gk. *gymnos*, naked; *stoma*, mouth.] Naked-mouthed; having no peristome, *appl.* mosses; gymnostomous.

gynaecaner (jin'ēkā'nēr) *n.* [Gk. *gyne*, woman; *aner*, man.] A male ant resembling a female; a gynaecomorphic male.

gynaecium (jinēsē'ūm) *n.* [Gk. *gynaikeia*, women's part of a house.] The female organs of a flower, the pistil, consisting of one or more carpels; gynaecium, gynecium, gynoecium.

gynaecoid (jinē'koid) *n.* [Gk. *gyne*,

woman; *eidos*, form.] An egg-laying worker ant.

gynaecophore (jinē'kōfōr) *n.* [Gk. *gyne*, woman; *pherein*, to carry.] Canal or groove of certain worms, formed by inrolling of sides, in which the female is carried; gynaecophoric or gynaecophoral groove.

gynander (jinän'dēr) *n.* [Gk. *gyne*, female; *aner*, male.] A gynandromorph.

gynandrisim (jinän'drīzm) *n.* [Gk. *gyne*, woman; *aner*, man.] Hermaphroditism.

gynandromorph (jinän'drōmōrf) *n.* [Gk. *gyne*, woman; *aner*, man; *morphe*, form.] An individual exhibiting a spatial mosaic of male and female characters; *cf.* intersex.

gynandromorphism (jinän'drōmōr-fizm). [Gk. *gyne*, woman; *aner*, man; *morphe*, form.] Condition of being a gynandromorph or manifesting a mosaic of male and female sexual characters, as having one side characteristically male, the other female.

gynandrophore (jinän'drōfōr) *n.* [Gk. *gyne*, woman; *aner*, man; *pherein*, to carry.] An axial prolongation bearing a sporophyll; a gonophore bearing both stamens and gynoecium.

gynandrosporous (jinän'drōspō'rūs) *a.* [Gk. *gyne*, woman; *aner*, man; *sporos*, seed.] With androspores adjoining the oogonium, as in some algae.

gynandrous (jinän'drūs) *a.* [Gk. *gyne*, woman; *aner*, man.] Having stamens fused with pistils, as in some orchids.

gynantherous (jinän'thērūs) *a.* [Gk. *gyne*, woman; *anthos*, flower.] Having stamens converted into pistils.

gynase (jin'nās) *n.* [Gk. *gyne*, woman.] A female-determining factor in the form of an enzyme or hormone.

gynatrium (jinā'trīūm) *n.* [Gk. *gyne*, woman; *L. atrium*, entrance-hall.] Female genital pouch or vestibulum, of certain insects.

gyne (jĭn'ē) *n.* [Gk. *gyne*, woman.] A female ant.

gynecium,—gynoecium, *q.v.*

gynetype (jĭn'ētĭp) *n.* [Gk. *gyne*, woman; *typos*, pattern.] Type specimen of the female of a species.

gynic (jĭn'ĭk) *a.* [Gk. *gyne*, woman.] Female, *opp.* andric.

gynobase (jĭn'ōbās) *n.* [Gk. *gyne*, woman; L. *basīs*, base.] A gynoecium-bearing receptacle of certain plants; condition in which style appears to arise from ovary.

gynobasic style,—a style arising from base of carpel.

gynodioecious (jĭn'ōdiē'siūs) *a.* [Gk. *gyne*, woman; *dis*, twice; *oikos*, house.] *Appl.* plants producing female or hermaphrodite flowers only.

gynoecium (jĭn'ē'siūm) *n.* [Gk. *gyne*, woman; *oikos*, house.] The female organs of a flower; gynoecium.

gynogenesis (jĭ'nōjĕn'ēsis) *n.* [Gk. *gyne*, woman; *genesis*, descent.] Development from eggs penetrated by the spermatozoon but not embodying its nucleus, as in some nematodes.

gynogonidia (jĭ'nōgōnĭd'iā) *n. plu.* [Gk. *gyne*, woman; *gonidion*, small seed.] Female sexual elements formed after repeated division of parthenogonidia in *Mastigophora*.

gynomerogony (jĭ'nōmērōg'ōnĭ) *n.* [Gk. *gyne*, female; *meros*, part; *gone*, generation.] The development of an egg fragment, obtained before fusion with male nucleus, and containing maternal chromosomes only.

gynomonoecious (jĭ'nōmōnē'siūs) *a.* [Gk. *gyne*, woman; *monos*, alone; *oikos*, house.] *Appl.* plants with pistillate and hermaphrodite flowers only.

gynophore (jĭ'nōfōr) *n.* [Gk. *gyne*, woman; *pherein*, to carry.] A stalk supporting the ovary; elongation of thalamus between stamens and pistil; female gonophore.

gynosporangium (jĭn'ōspōrān'jiūm) *n.* [Gk. *gyne*, woman; *sporos*, seed; *anggeion*, vessel.] Female sporangium; megasporangium.

gynospore (jĭ'nōspōr) *n.* [Gk. *gyne*, female; *sporos*, seed.] Female spore; megaspore; embryo-sac.

gynostegium (jĭn'ōstē'jiūm) *n.* [Gk. *gyne*, woman; *stēge*, roof.] A protective covering for a gynoecium.

gynostemium (jĭn'ōstē'miūm) *n.* [Gk. *gyne*, woman; *stemon*, warp.] The column composed of united pistil and stamens in orchids.

gypsophil (jĭp'sōfil) *a.* [Gk. *gypsos*, chalk, gypsum; *philein*, to love.] Thriving in soils containing chalk or gypsum; gypsophilous; calcicolous, calciphil.

gypsophyte (jĭp'sōfit) *n.* [Gk. *gypsos*, chalk, gypsum; *phyton*, plant.] A gypsophil plant; calcicole, calcipete, calciphile, calciphyte.

gyral (jĭ'rāl) *a.* [L. *gyrus*, circle.] *Pert.* a gyrus; *pert.* circular or spiral movement.

gyration (jĭrā'shūn) *n.* [L. *gyrare*, to revolve.] Rotation, as of cells; a whorl of a spiral shell.

gyre (jĭr) *n.* [Gk. *gyros*, L. *gyrus*, circle.] Circular movement; spiral coiling, as of chromatids.

gyrencephalic (jĭ'rĕnkĕfāl'ĭk, -sĕf-) *a.* [Gk. *gyros*, circle; *engkephalos*, brain.] Having cerebral convolutions; gyrencephalous. *Opp.* lissencephalic.

gyri,—*plu.* of gyrus.

gyrochrome (jĭ'rōkrōm) *a.* [Gk. *gyros*, circle; *chroma*, colour.] With Nissl granules arranged in a circle, *appl.* certain neurones.

gyroma (jĭrō'mā) *n.* [Gk. *gyros*, circle.] A discoid or knob-like apothecium of certain lichens; annulus, *q.v.*, of ferns.

gyrose (jĭ'rōs) *a.* [L. *gyrare*, to revolve.] With undulating lines; sinuous.

gyrus (jĭ'rūs) *n.* [L. *gyrus*, circle.] A cerebral convolution; a ridge winding between two grooves.

H

habenula (hăbĕn'ŭlă) *n.* [L. *habena*, strap.] A name *appl.* certain band-like structures. *a.* Habenular; *appl.* a commissure of epithalamus.

habitat (hăb'ităt) *n.* [L. *habitare*, to inhabit.] The locality or external environment in which a plant or animal lives.

habitat space,—the habitable part of space or area available for establishing a population.

habituatio (hăbĭt'ŭă'shŭn) *n.* [L. *habituare*, to bring into a habit.] The adjustment, effected in a cell or in an organism, by which subsequent contacts of the same stimulus produce diminishing effects.

habitus (hăb'itŭs) *n.* [L. *habitus*, appearance.] The general appearance or conformation characteristic of a plant or an animal; constitutional tendency.

hadal (hă'dăl) *a.* [Gk. *hades*, unseen.] *Appl.* or *pert.* abyssal deeps below 6000 metres.

hadrocentric (hăd'rôsĕn'trĭk) *a.* [Gk. *hadros*, thick; *kentron*, centre.] With phloem surrounding xylem.

hadrome (hăd'rôm) *n.* [Gk. *hadros*, thick.] Conducting tissue of xylem; hadromestome.

Haeckel's law [*E. H. Haeckel*, German zoologist]. Biogenetic law; recapitulation theory, *q.v.*

haem (hĕm) *n.* [Gk. *haima*, blood.] A blood substance, oxidising to haematin; $C_{34}H_{32}O_4N_4Fe$.

haemachrome (hĕ'măkrôm) *n.* [Gk. *haima*, blood; *chromos*, colour.] Colouring matter found in blood.

haemacyte (hĕ'măsit) *n.* [Gk. *haima*, blood; *kytos*, hollow.] A blood corpuscle.

haemad (hĕ'măd) *adv.* [Gk. *haima*, blood; L. *ad*, to.] Situated on same side of vertebral column as heart.

haemal (hĕ'măl) *a.* [Gk. *haima*, blood.] *Pert.* blood or blood-vessels; situated on same side of vertebral column as heart.

haemamoeba (hĕ'mămĕ'bă) *n.* [Gk. *haima*, blood; *amoibe*, change.] Protozoon with an amoeboid trophozoitic stage parasitic in a red blood-corpuscle.

haemangioblast (hĕmăn'jĭôblăst) *n.* [Gk. *haima*, blood; *anggeion*, vessel; *blastos*, bud.] A blood island, *q.v.*

haemapoietic (hĕ'măpoiĕt'ĭk) *a.* [Gk. *haima*, blood; *poiein*, to form.] Blood-forming; haemapoietic.

haemapophysis (hĕ'măpŏf'ĭsis) *n.* [Gk. *haima*, blood; *apo*, from; *phycin*, to grow.] One of plate-like or spine-like processes growing from the latero-ventral surfaces of a vertebral centrum.

haematal (hĕm'ătăl) *a.* [Gk. *haima*, blood.] *Pert.* blood or blood-vessels.

haematid (hĕm'ătĭd) *n.* [Gk. *haima*, blood.] Red blood-corpuscle.

haematin (hĕm'ătĭn) *n.* [Gk. *haima*, blood.] A pigment formed by decomposition of haemoglobin, containing iron and having the property of carrying oxygen; protohaem; $C_{34}H_{33}O_5N_4Fe$.

haematobic (hĕm'ătŏ'bĭk) *a.* [Gk. *haima*, blood; *bios*, life.] Living in blood.

haematobium (hĕm'ătŏ'bĭŭm) *n.* [Gk. *haima*, blood; *bios*, life.] An organism living in blood.

haematoblast (hĕm'ătŏblăst) *n.* [Gk. *haima*, blood; *blastos*, bud.] A cell that will develop into a red blood-corpuscle; thrombocyte; blood platelet.

haematochrome (hĕm'ătŏkrôm) *n.* [Gk. *haima*, blood; *chroma*, colour.] A carotenoid red pigment of certain algae.

haematocryal (hĕm'ătŏkrĭ'ăl) *a.* [Gk. *haima*, blood; *kryos*, cold.] Cold-blooded.

haematocyanin (hĕm'ătŏsĭ'ănĭn) *n.* [Gk. *haima*, blood; *kyanos*, dark blue.] Haemocyanin, *q.v.*

haematocytozoon (hĕm'ătŏsĭ'tŏzŏ'ŏn) *n.* [Gk. *haima*, blood; *kytos*, hollow; *zoon*, animal.] An intracorpuseular blood parasite.

haematodocha (hēm'ätödök'ä) *n.*

[Gk. *haima*, blood; *doche*, receptacle.] A fibro-elastic bag at base of palpal organ in Araneae.

haematogen (hēm'ätöjën) *n.* [Gk.

haima, blood; *genos*, birth.] A nucleoprotein containing iron.

haematogenesis (hēm'ätöjën'ësis) *n.*

[Gk. *haima*, blood; *genesis*, descent.] The formation of blood.

haematogenous (hēm'ätöj'ënüs) *a.*

[Gk. *haima*, blood; *genos*, birth.] Formed in blood; derived from blood.

haematoidin (hēm'ätoid'in) *n.* [Gk.

haima, blood; *eidos*, form.] An iron-free derivative of haemoglobin, forming crystals in blood clots, and identical with bilirubin.

haematolysis (hēm'ätöl'isis) *n.* [Gk.

haima, blood; *lysis*, loosing.] Haemolysis, *q.v.*

haematophagous (hēm'ätöf'ägüs) *a.*

[Gk. *haima*, blood; *phagein*, to eat.] Feeding on blood, or obtaining nourishment from blood.

haematophyte (hēm'ätöfit) *n.* [Gk.

haima, blood; *phyton*, plant.] Any vegetable micro-organism in blood.

haematopoiesis, — haematogenesis, haemopoiesis.

haematoporphyrin (hēm'ätöpôr'-

firin) *n.* [Gk. *haima*, blood; *porphyra*, purple.] An iron-free pigment formed by decomposition of haematin; $C_{34}H_{33}O_6N_4$.

haematosi (hēm'ätös'isis) *n.* [Gk.

haimatoein, to change to blood.] Blood-formation.

haematothral (hēm'ätöthër'mäl)

a. [Gk. *haima*, blood; *thermos*, warm.] Warm-blooded.

haematozoon (hēm'ätözō'ön) *n.* [Gk.

haima, blood; *zoon*, animal.] Any animal parasitic in blood.

haemerythrin (hēm'ërith'rîn) *n.* [Gk.

haima, blood; *erythros*, red.] A red respiratory pigment of corpuscles in body fluid of sipunculids and some annelids; haemoerythrin.

haemic (hë'mik) *a.* [Gk. *haima*, blood.] *Pert.* blood.

haemin (hë'mîn) *n.* [Gk. *haima*,

blood.] Haem; chloride formed in blood clot: $C_{34}H_{33}O_4N_4FeCl$.

haemoblast (hë'möbläst) *n.* [Gk.

haima, blood; *blastos*, bud.] A cell which gives rise to an erythroblast; haematoblast.

haemochromes (hë'mökrörmz) *n. plu.*

[Gk. *haima*, blood; *chroma*, colour.] Blood pigments, as haemoglobin, haemocyanin, chlorocruorin, erythrocrucorin, haemoerythrin.

haemochromogen (hë'mökrö'möjën)

n. [Gk. *haima*, blood; *chroma*, colour; *genos*, birth.] A chromoprotein produced by alkali and reduction of haemoglobin.

haemoclastic (hë'mökläs'tik) *a.* [Gk.

haima, blood; *klastos*, broken.] Breaking down blood cells, *appl.* tissues. *Opp.* haemoplastic.

haemocoel (hë'mösël) *n.* [Gk.

haima, blood; *koilos*, hollow.] An expanded portion of the blood system which replaces the true coelom.

haemoconia (hë'mökön'ia) *n.* [Gk.

haima, blood; *konis*, dust.] Minute fat droplets entering or leaving cells; chylomicrons, *q.v.*

haemocyanin (hë'mösi'anîn) *n.* [Gk.

haima, blood; *kyanos*, dark blue.] A haemoglobin-like blood pigment containing copper instead of iron, in molluscs, crustaceans, and some arachnids.

haemocyte (hë'mösit) *n.* [Gk. *haima*,

blood; *kytos*, hollow.] A blood cell, as in insects.

haemocyto (hë'mösitöbläst) *n.*

[Gk. *haima*, blood; *kytos*, hollow; *blastos*, bud.] Primitive stem cell from which all blood cells are derived; a lymphoid haemoblast; lymphoidocyte.

haemocytolysis (hë'mösitöl'isis) *n.*

[Gk. *haima*, blood; *kytos*, hollow; *lyein*, to dissolve.] Breaking up of red blood-corpuscles by solution.

haemocytotrypsis (hë'mösitötörîp'-

sis) *n.* [Gk. *haima*, blood; *kytos*, hollow; *tribein*, to rub.] Breaking up of blood-corpuscles by pressure.

haemoerythrin (hē'möērith'rīn) *n.*

[Gk. *haima*, blood; *erythros*, red.] A red respiratory pigment in certain invertebrates; haemerythrin.

haemofuscin (hē'möfūs'sīn) *n.* [Gk

haima, blood; L. *fuscus*, tawny.] A yellow blood pigment deposited under various pathological conditions.

haemogenesis,—haematogenesis.

haemoglobin (hē'möglō'bīn) *n.* [Gk.

haima, blood; L. *globus*, sphere.] The red respiratory pigment of blood of vertebrates, consisting of haematin united to globin.

haemohistioblast (hē'möhīs'tiō-

bläst) *n.* [Gk. *haima*, blood; *histion*, tissue; *blastos*, bud.] A free macrophage in blood, especially of veins.

haemoid (hē'moid) *a.* [Gk. *haima*, blood; *eidōs*, form.] Resembling blood.

haemolymph (hē'mölimf) *n.* [Gk.

haima, blood; L. *lymphā*, water.] A fluid found in coelom of some invertebrates, regarded as equivalent to blood and lymph of higher forms; *appl.* nodes: modified lymph nodes containing blood.

haemolysin (hē'möli'sīn) *n.* [Gk.

haima, blood; *lyein*, to dissolve.] A substance developed in or added to blood serum, capable of destroying red blood-corpuscles.

haemolysis (hēmöl'īsis) *n.* [Gk.

haima, blood; *lysis*, loosing.] The lysis or solution of red blood-corpuscles; erythrocytolysis; laking.

haemophilia (hēm'öfil'īā) *n.* [Gk.

haima, blood; *philos*, loving.] Absence of ready coagulation of shed blood, a sex-linked hereditary characteristic.

haemoplasmodium (hē'möplāzmō'-

dīūm, -plās-) *n.* [Gk. *haima*, blood; *plasma*, mould.] A unicellular parasite of blood.

haemoplastic (hē'möplās'tīk) *a.* [Gk.

haima, blood; *plastos*, formed.] Blood-forming; haemopoietic. *Opp.* haemoclastic.

haemopoiesis (hē'möpoiēs'īs) *n.*

[Gk. *haima*, blood; *poiesis*, making.] The formation and development of blood cells.

haemopoietic (hē'möpoiēt'īk) *a.* [Gk.

haima, blood; *poietikos* productive]. Blood-forming; *pert.* haemopoiesis; haemoplastic.

haemopsonin (hēmöp'sōnīn) *n.* [Gk.

haima, blood; *opsoncin*, to cater.] An opsonin for erythrocytes.

haemorrhoidal (hēmōroid'äl) *a.* [Gk.

haima, blood; *rhein*, to flow.] Rectal, *appl.* blood-vessels, nerve.

haemosiderin (hēmōsid'ērīn) *n.*

[Gk. *haima*, blood; *sideros*, iron.] A yellow pigment of blood giving an iron reaction.

haemostatic (hē-möstät'īk) *a.* [Gk.

haima, blood; *statikos*, causing to stand.] *Appl.* membrane crossing joint between trochanter and femur in autotomy of limb of some arthropods.

haemotoxin (hē'mötök'sīn) *n.* [Gk.

haima, blood; *toxikon*, poison.] A toxin which produces haemolysis.

haemotropic (hē'mötröp'īk) *a.* [Gk.

haima, blood; *trope*, turn.] Affecting or acting upon blood.

haemozoin (hē'mözō'in) *n.* [Gk.

haima, blood; *zoon*, animal.] Granules of a black pigment, the residue from digestion of haemoglobin by malarial parasites.

haerangium (hērān'jiūm) *n.* [L.

haerere, to cling; Gk. *angeion*, vessel.] The apparatus for collecting and dispersing spores in Haerangiomycetes, an adhesive droplet containing spores being held by the tenaculum, *q.v.*

hair (hār) *n.* [A.S. *haer*.] Any epi-

dermal filamentous outgrowth consisting of one or more cells, varied in shape; a thread-like or filamentous outgrowth of epidermis of animals; a setum, *q.v.*

hair cells,—sensory cells in organ of Corti.

hair follicle,—tubular sheath formed by invagination of epidermis and surrounding base of hair.

half-inferior,—having ovary but partially adherent to calyx.

half-spindle,—unipolar spindle, as in meiosis of some insects.

half-terete,—rounded on one side, flat on the other.

halibios,—halobios.

haliplankton,—haloplankton, *q.v.*

hallachrome (hāl'ākrom) *n.* [*Halla*, an annelid; Gk. *chroma*, colour.] A red pigment or respiratory catalyst in skin of *Halla*, derived from tyrosine, formed by oxidation of dopa, and oxidised to melanin; $C_9H_7O_4N$.

Haller's organ [*G. Haller*, German zoologist]. A tarsal chemoreceptor in ticks.

hallux (hāl'üks) *n.* [*L. hallux*, great toe.] First digit of hind-limb.

halm,—haulm.

halobios (hāl'öb'ös) *n.* [Gk. *hals*, sea; *bios*, life.] Sum total of organisms living in the sea.

halolimnic (hāl'ölim'nik) *a.* [Gk. *hals*, sea; *limne*, marsh.] *Pert.* marine organisms modified to live in fresh water.

halophilous (hāl'öf'ilus) *a.* [Gk. *hals*, salt; *philein*, to love.] Salt-loving; thriving in presence of salt; halophilic.

halophyte (hāl'öfit) *n.* [Gk. *hals*, salt; *phyton*, plant.] A shore plant; plant capable of thriving on salt-impregnated soils.

haloplankton (hāl'öpläng'ktön) *n.* [Gk. *hals*, sea; *plangkton*, wandering.] The organisms drifting in the sea; haliplankton.

halosere (hāl'ösēr) *n.* [Gk. *hals*, salt; *L. serere*, to put in a row.] A plant succession originating in a saline area.

haloxene (hāl'öksēn) *a.* [Gk. *hals*, salt; *xenos*, guest.] Tolerating salt water.

halteres (hältē'rēs) *n. plu.* [Gk. *halter*, weight.] A pair of small capitulate bodies representing rudimentary posterior wings in Diptera; balancers, poisers.

hamate (hāmāt) *a.* [*L. hamatus*, hooked.] Hooked or hook-shaped at the tip; hamose; uncinat.

hamatum (hāmā'tum) *n.* [*L. hama-*

tus, hooked.] The unciform bone in the carpus, probably corresponding to fourth and fifth distalia of a typical pentadactyl limb.

hamiform (hāmifōrm) *a.* [*L. hamus*, hook; *forma*, shape.] Hook-shaped; unciform.

hamirostrate (hām'irōs'trāt) *a.* [*L. hamus*, hook; *rostrum*, beak.] Having a hooked beak.

hamose,—hamate.

hamstrings,—tendons of insertion of the posterior femoral muscles, *i.e.*, of semitendinosus, semimembranosus, and biceps.

hamula (hām'ulā) *n.* [*L. hamulus*, little hook.] Retinaculum of insects; fused ventral appendages acting with caudal furcula in spring-tails or Collembola; hamulus, *q.v.*

hamular,—hooked; hook-like.

hamulate (hām'ulāt) *a.* [*L. hamulus*, little hook.] Having small hook-like processes.

hamulus (hām'ülüs) *n.* [*L. hamulus*, little hook.] A hooklet, or hook-like process, as of lacrimal, hamate, and pterygoid bones, and of osseous spiral lamina at apex of cochlea; minute hook-like process on distal barbules which aid in interlocking of feather barbs; retinaculum of Hymenoptera.

hamus (hām'üs) *n.* [*L. hamus*, hook.] Hooked part of uncus in male Lepidoptera.

hapaxanthous (hāp'äksän'thūs) *a.* [Gk. *hapax*, once; *anthos*, flower.] With only a single flowering period; hapaxanthic, *opp.* pollakanthic.

haplobiont (hāp'löb'önt) *n.* [Gk. *haploos*, simple; *bion*, living.] An organism characterised by one kind of individual. *Opp.* diplobiont.

haplocaulescent (hāp'lökölēs'ēt) *a.* [Gk. *haploos*, simple; *L. caulis*, stem.] With a simple axis, *i.e.* capable of producing seed on the main axis.

haplochlamydeous (hāp'löklämid'ēüs) *a.* [Gk. *haploos*, simple; *chlamys*, cloak.] Having rudimentary leaves in connection with sporophylls.

haplo-diploid (hăp'lödîp'loid) *a.* [Gk. *haploos*, simple; *diploos*, double; *eidos*, form.] *Appl.* sex-differentiation in which the male is haploid, the female diploid.

haplodont (hăp'lödönt) *a.* [Gk. *haploos*, simple; *odontos*, tooth.] Having molars with simple crowns.

haploid (hăp'loid) *a.* [Gk. *haploos*, simple; *eidos*, form.] Having the number of chromosomes characteristic of mature germ-cells for the organism in question; *appl.* the typical gametic number of chromosomes after meiosis. *n.* Organism having one genome; *cf.* diploid.

haplometrosis,—monometrosis.

haplometrotic,—monometrotic.

haplomitosis (hăp'lômî'tô'sîs) *n.* [Gk. *haploos*, simple; *mitos*, thread.] Type of cell division where nuclear granules form chromospines which withdraw in two groups or divide transversely in the middle.

haplomycelium (hăp'lômî'sî'lîüm) *n.* [Gk. *haploos*, simple; *mykes*, fungus.] Haploid mycelium.

haplont (hăp'lönt) *n.* [Gk. *haploos*, simple; *on*, being.] An organism having haploid somatic nuclei.

haploperistomous (hăp'löpêrîs'tô-mûs) *a.* [Gk. *haploos*, simple; *peri*, around; *stoma*, mouth.] Having a single peristome; having a peristome with a single row of teeth, *appl.* mosses; haploperistomic.

haplopetalous (hăp'löpêt'ălûs) *a.* [Gk. *haploos*, simple; *petalon*, leaf.] With a single row of petals.

haplophase (hăp'lôfâz) *n.* [Gk. *haploos*, simple; *phasis*, aspect.] Stage in life-history of an organism when nuclei are haploid; gametophyte phase.

haplophyte (hăp'lôfit) *n.* [Gk. *haploos*, simple; *phyton*, plant.] A haploid plant or gametophyte. *Opp.* diplophyte or sporophyte.

haploptile (hăp'lötîl, -ptîl) *n.* [Gk. *haploos*, simple; *ptilon*, feather.] Single neossomite, without rachis, formed by precocious development of the barbs of the teleoptile.

haplosis (hăplô'sîs) *n.* [Gk. *haploos*,

simple.] Halving of the chromosome number during meiosis; reduction and disjunction.

haplostemonous (hăp'löstêm'ônûs) *a.* [Gk. *haploos*, simple; *stemon*, warp.] Having one whorl of stamens.

haplostromatic (hăp'löströmât'ik) *a.* [Gk. *haploos*, simple; *stroma*, bedding.] *Appl.* fungi having little or no entostroma, perithecia being formed in ectostroma. *Opp.* diplostromatic.

haplotype (hăp'lötîp) *n.* [Gk. *haploos*, simple; *typos*, pattern.] The only species in a genus originally, and thereby becoming a genotype.

haplozygous (hăplöz'îgûs) *a.* [Gk. *haploos*, simple; *zygon*, yoke.] *Appl.* genes in haploid organisms; hemizygous.

haptera (hăp'têrâ) *n. plu.* [Gk. *haptein*, to fasten.] Holdfasts, special disc-like outgrowths from the stem-like portion of certain algae, which serve as organs of attachment. *Sing.* hapteron.

haptic (hăp'tik) *a.* [Gk. *haptein*, to touch.] *Pert.* touch; *appl.* stimuli and reactions.

haptogen (hăp'tôjên) *a.* [Gk. *haptein*, to fasten; *-genes*, producing.] *Appl.* a limiting membrane of solidified protein which prevents miscibility.

haptomonad (hăp'tômôn'äd) *n.* [Gk. *haptein*, to fasten; *monas*, unit.] An attached form of certain parasitic Flagellata; *cf.* nectomonad.

haptophores (hăp'tôfôrz) *n. plu.* [Gk. *haptein*, to fasten; *pherein*, to carry.] The combining qualities of the molecule of a toxin, lysin, opsonin, precipitin, or agglutinin; *cf.* toxophores.

haptospore (hăp'töspôr) *n.* [Gk. *haptein*, to fasten; *sporos*, seed.] An adhesive spore; plasmaspore.

haptotropic (hăp'tôtröp'ik) *a.* [Gk. *haptein*, to touch; *trope*, turn.] *Appl.* curvature of a plant organ due to contact stimulus; thigmotropic.

haptotropism (hăptôt'rôplzm) *n.* [Gk. *haptēin*, to touch ; *trôpe*, turn.] Response to contact stimulus, as in tentacles, tendrils, stems.

haptotype (hăp'tôtip) *n.* [Gk. *haptēin*, to touch ; *typos*, pattern.] An icotype collected with the holotype but possibly taken from another plant.

Harderian gland [*J. J. Harder*, Swiss anatomist]. An accessory lacrimal gland of third eyelid or nictitating membrane.

harlequin lobe,—a testicular lobe with cells differing from those of other lobes, in certain Hemiptera.

harmonic suture,—an articulation formed by apposition of edges or surfaces, as between palatine bones.

harmosis (hârmô'sis) *n.* [Gk. *harmosis*, fitting.] Arrangement and adaptation in response to a stimulus.

harmozone (hârmô'zôn) *n.* [Gk. *harmozo*, I arrange.] One of the hormones which influence growth and nutrition.

harpagones (hâr'păgô'nēz) *n. plu.* [L. *harpago*, hook.] Claspers or valves of certain male insects ; a pair of sclerites between harpes and claspers in mosquitoes ; harpes in Lepidoptera.

harpes (hâr'pēz) *n. plu.* [Gk. *harpe*, sickle.] Chitinous processes between the claspers of mosquitoes ; claspers or valves of Lepidoptera.

Hartig net,—network of hyphae between cortical cells of roots in ectotrophic mycorrhiza.

Hassall's concentric corpuscles [*A. H. Hassall*, English physician]. Epithelial cell nests in medulla of thymus.

hastate (hās'tāt) *a.* [L. *hasta*, spear.] Spear-shaped, more or less triangular with the two basal lobes divergent ; *appl.* leaf-markings.

Hatschek's nephridium [*B. Hatschek*, Austrian zoologist]. A nephridium between notochord and preoral pit in Cephalochorda.

Hatschek's pit,—a mucin-secreting gland in roof of oral cavity in Cephalochorda ; preoral pit.

haulm (hôm) *n.* [A.S. *healm*.] The stem of such plants as peas ; the stem of a grass.

haustellate (hôs'têlât) *a.* [L. *haurire*, to drain.] Having a proboscis adapted for sucking.

haustellum (hôtêl'üm) *n.* [L. *haurire*, to drain.] A proboscis adapted for sucking.

haustoria,—*plu.* of haustorium.

haustorial (hôtô'riâl) *a.* [L. *haurire*, to drink.] *Pert.* or resembling a haustorium.

haustorium (hôtô'rîüm) *n.* [L. *haurire*, to drink.] An outgrowth of stem, root, or hyphae of certain parasitic plants, which serves to draw food from the host plant ; sucker ; an outgrowth of embryo-sac which extends to nutritive tissue in certain non-parasitic plants.

haustra (hôs'trâ) *n. plu.* [L. *haustrum*, drawer.] Recesses of sacculations of the colon, between plicae semilunares. *Sing.* haustum.

Haversian canals [*C. Havers*, English anatomist]. Small canals in bone, in which lie blood-capillaries, nerve, and lymph-space.

Haversian fringes,—synovial villi.

Haversian system,—a Haversian canal, the surrounding concentric lamellae and lacunae with canaliculi.

H Cl cells,—parietal cells of stomach, which secrete hydrochloric acid.

H-disc,—lighter region in anisotropic band of myofibrillae ; Hensen's disc.

head-cap,—apical part or galea of head of spermatozoon ; perforatorium.

head-case,—the outer hard covering of insect head.

head-cell,—one of the cells on manubrium of antheridium of Chara.

head-kidney,—the pronephric portion of kidney, in vertebrates usually represented only in embryo ; a nephridium usually developed in cephalic segment of invertebrates.

heart (hârt) *n.* [A.S. *heorte*.] A hollow muscular organ with varying number of chambers which by rhythmic contraction keeps up circulation of blood; core or central portion of a tree or fruit.

heart-wood,—the darker, harder, central wood of trees; duramen.

heat (hêt) *n.* [A.S. *haetu*.] A kind of energy manifested in various ways; the sensation of warmth produced by stimulation of special organs; the period of sexual desire.

heat spot,—a special area on the skin at which nerve endings sensitive to heat are found.

hectocotylus (hêk'tôkôt'ilūs) *n.* [Gk. *hekaton*, hundred; *kotylus*, cup.] One of the arms of a male cephalopod, specialised to effect transference of sperms.

hedonic (hêdôn'ik) *a.* [Gk. *hedone*, pleasure.] *Appl.* skin glands of certain reptiles, which secrete musk and are specially active at rutting season.

heel (hêl) *n.* [A.S. *hela*.] Hinder or posterior tarsal portion of foot; talon or talonid of a tooth; a spinule at base of tibia in Hymenoptera.

Heidenhain, demilunes of,—see demilunes.

hekistotherm (hê'kistôthêrm) *n.* [Gk. *hekistos*, least; *therme*, heat.] A plant that thrives with the minimum of heat, as alpine plants.

Heister's valve [*L. Heister*, German anatomist]. Spiral valve in neck of gall-bladder.

helcotropism (hêlkôt'rôpizm) *n.* [Gk. *helkein*, to draw down; *trepein*, to turn.] Tendency to respond to stimulus of gravity; geotropism.

helices,—*plu.* of helix.

helicine (hêl'isîn) *a.* [Gk. *helix*, spiral.] Spiral; convoluted; *appl.* certain convoluted and dilated arteries in penis; *pert.* outer rim of pinna.

helicoid (hêl'ikoid) *a.* [Gk. *helix*,

spiral; *eidōs*, like.] Spiral; shaped like a snail's shell; *pert.* type of sympodial branching in which sympodium consists of fork branches of same side.

helicoid cyme,—an inflorescence produced by suppression of successive axes on same side, thus causing the sympodium to be spirally twisted; bostryx.

helicorubin (hêl'ikôroob'in) *n.* [*L. helix*, spiral; *ruber*, red.] A red pigment of gut of pulmonate gastropods.

helicospore (hêl'ikôspôr) *n.* [Gk. *helix*, spiral; *sporos*, seed.] A convolute or spiral spore.

helicotrema (hêl'ikôtrê'mâ) *n.* [Gk. *helix*, spiral; *trema*, hole.] A small opening near summit of cochlea by which the scalae vestibuli and tympani communicate.

heliophil (hê'lîôfil) *a.* [Gk. *helios*, sun; *philein*, to love.] Adapted for relatively high intensity of light; heliophilic, heliophilous. *Opp.* heliophobic, skiophil.

heliophobic,—skiophil, *qv.*

heliophyll (hê'lîôfil) *n.* [Gk. *helios*, sun; *phyllon*, leaf.] A plant having isolateral leaves. *Opp.* skiophyll.

heliophyte (hê'lîôfit) *n.* [Gk. *helios*, sun; *phyton*, plant.] A sun plant, *opp.* shade plant or skiaphyte.

heliosis (hê'lîô'sis) *n.* [Gk. *helios*, sun.] Production of discoloured spots or markings on leaves through concentration of sun on them; solarisation.

heliotaxis (hê'lîôtâk'sis) *n.* [Gk. *helios*, sun; *taxis*, arrangement.] Locomotor or other response to stimulus of sunlight.

heliotropism (hê'lîôt'rôpizm) *n.* [Gk. *helios*, sun; *trepein*, to turn.] Curvature of organisms or certain parts in response to the stimulus of sunlight.

helix (hê'liks) *n.* [Gk. *helix*, spiral.] A spiral; the coiled spiral arrangement of certain structures in invertebrates; the outer rim of external ear.

helmet (hěl'mět) *n.* [A.S. *helm*; *helan*, to cover.] The process of bill of hornbills; the bony plates covering head of certain extinct fishes; the galea of flowers and of insects.

helminthoid (hělmin'thoid) *a.* [Gk. *helmins*, worm; *eidos*, shape.] Shaped like a worm; vermiform.

helminthology (hěl'mĩnthöl'öjĩ) *n.* [Gk. *helmins*, worm; *logos*, discourse.] The study of the natural history of worms; the study of parasitic flatworms and roundworms.

helophyte (hěl'öfit) *n.* [Gk. *helos*, marsh; *phyton*, plant.] A marsh plant; a cryptophyte growing in soil saturated with water.

helotism (hěl'ötizm) *n.* [Gk. *heilotes*, serf, from *Helos*, Laconian town.] Symbiosis in which the one organism enslaves the other and forces it to labour in its behalf, *e.g.* in lichens, in some species of ants.

hema-,—*see* haema-.

heme,—haem.

hemelytron (hěměl'itrön) *n.* [Gk. *hemi*, half; *elytron*, sheath.] Proximally hardened forewing of certain insects; elytron of certain worms; hemelytrum.

hemera (hěmēr'ä) *n.* [Gk. *hemera*, day.] The time during which fossiliferous strata constituting a zone of sedimentary rocks were deposited.

hemeranthous (hěmērān'thūs) *a.* [Gk. *hemera*, day; *anthos*, flower.] Flowering by day; hemeranthic.

hemerophyte (hě'méröfit) *n.* [Gk. *hemeros*, tame; *phyton*, plant.] A cultivated plant.

hemerythrin,—haemerythrin.

hemibasidium (hěm'ibāsīd'ium) *n.* [Gk. *hemi*, half; *basis*, base; *idion*, dim.] The promycelium of the Ustilaginales.

hemibathybial (hěm'ibāthīb'ial) *a.* [Gk. *hemi*, half; *bathys*, deep; *bios*, life.] *Pert.* plankton between littoral and bathybial zones.

hemibranch (hěm'ibrāngk) *n.* [Gk.

hemi, half; *branchia*, gills.] Gill with gill filaments on one side only; half-gill.

hemicellulase (hěm'isěl'ulās) *n.* [Gk. *hemi*, half; L. *cellula*, small cell.] An enzyme which effects hydrolysis of a hemicellulose, occurring in endosperm, fungi, and certain invertebrates.

hemicellulose (hěm'isěl'ulōs) *n.* [Gk. *hemi*, half; L. *cellula*, small cell.] One of several polysaccharides, chemically unrelated to cellulose, occurring as cell wall constituents in cotyledons, endosperms, and woody tissues, and serving as reserve food.

hemicephalous (hěm'ikēf'älūs, -sēf-), *a.* [Gk. *hemi*, half; *kephale*, head.] *Appl.* insect larvae with reduced head.

hemichlamydeous (hěm'iklāmīd'eūs) *a.* [Gk. *hemi*, half; *chlamys*, cloak.] Having ovuliferous scale inverted and bearing nucellus.

hemichordate (hěm'ikōr'dāt) *a.* [Gk. *hemi*, half; *chorde*, string.] Possessing a rudimentary notochord.

hemicyptophyte (hěm'ikrip'tōfit) *n.* [Gk. *hemi*, half; *kryptos*, hidden; *phyton*, plant.] A plant with dormant buds in the soil surface, the aerial shoots surviving for a season only.

hemicyclic (hěm'isī'klik) *a.* [Gk. *hemi*, half; *kyklos*, round.] With some floral whorls cyclic, others spiral.

hemielytron,—hemelytron, *q.v.*

hemiepiphyte (hěm'ēp'ifit) *n.* [Gk. *hemi*, half; *epi*, upon; *phyton*, plant.] A plant whose seeds germinate on another plant, but later send roots to the ground.

hemigamy (hěmīg'āmĩ) *n.* [Gk. *hemi*, half; *gamos*, marriage.] Activation of ovum by male nucleus without nuclear fusion; semigamy.

hemignathous (hěmīg'nāthūs) *a.* [Gk. *hemi*, half; *gnathos*, jaw.] Having one jaw shorter than the other, as in some fishes and birds.

hemikaryon (hēm'ikār'īōn) *n.* [Gk. *hemi*, half; *karyon*, kernel.] A nucleus with gametic or haploid number of chromosomes; a pronucleus.

hemikaryotic (hēm'ikār'īōt'ik) *a.* [Gk. *hemi*, half; *karyon*, kernel.] *Pert.* hemikaryon; haploid.

hemimetabolic (hēm'imētābōl'ik) *a.* [Gk. *hemi*, half; *metabole*, change.] Having an incomplete or partial metamorphosis, as certain insects.

hemiparasite (hēm'ipār'āsīt) *n.* [Gk. *hemi*, half; *parasitos*, parasite.] A partial or facultative parasite.

hemiparasitic (hēm'ipār'āsīt'ik) *a.* [Gk. *hemi*, half; *para*, beside; *sitos*, food.] *Pert.* a plant which is capable of carrying on photosynthesis, but not sufficiently to supply all food material.

hemipenis (hēm'ipē'nīs) *n.* [Gk. *hemi*, half; *L. penis*, penis.] One of the paired copulatory organs in lizards and snakes.

hemipneustic (hēm'inū'stik, -pnū-) *a.* [Gk. *hemi*, half; *pnein*, to breathe.] With one or more pairs of spiracles closed.

hemipterygoid (hēm'iptēr'igoid) *n.* [Gk. *hemi*, half; *pteryx*, wing; *eidos*, form.] In neognath birds, part of pterygoid which fuses with palatine.

hemisaprophyte (hēm'isāp'rōfit) *n.* [Gk. *hemi*, half; *sapros*, decayed; *phyton*, plant.] A plant living partly by photosynthesis, partly by obtaining food from humus.

hemisome (hēm'isōm) *n.* [Gk. *hemi*, half; *soma*, body.] The symmetrical half of an animal about a median vertical plane.

hemisphere (hēm'isfēr) *n.* [Gk. *hemi*, half; *sphaira*, globe.] One of the cerebral or cerebellar hemispheres.

hemispore (hēm'ispōr) *n.* [Gk. *hemi*, half; *sporos*, seed.] A protoconidium, *q.v.*, of dermatophytes.

hemisystole (hēm'isīs'tōlē) *n.* [Gk. *hemi*, half; *systellein*, to contract.] Contraction of one ventricle of the heart.

hemitropous (hēmīt'röpūs) *a.* [Gk. *hemi*, half; *trope*, turn.] Turned half round, having an ovule with hilum on one side and micropyle, etc., opposite in a plane parallel to placenta.

hemixis (hēmik'sis) *n.* [Gk. *hemi*, half; *mixis*, mingling.] Fragmentation and reorganisation of macronucleus without involving micronucleus, in Paramecium.

hemizygous (hēmīz'igūs) *a.* [Gk. *hemi*, half; *zygon*, yoke.] *Appl.* genes in haploid organisms; *appl.* genes without alleles in normal diploid organisms; haplozygous.

hemo-,—see haemo-.

Henle's layer [*F. G. J. Henle*, German anatomist]. Outermost stratum of nucleated cubical cells in inner root-sheath of a hair-follicle.

Henle's loop,—loop of a kidney tubule within apical portion of pyramid.

Henle's sheath,—perineurium, or its prolongation surrounding branches of a nerve.

Hensen's cells [*V. Hensen*, German histologist]. Columnar supporting cells on basilar membrane, external to outer phalangeal cells in organ of Corti.

Hensen's line,—a disc dividing the darker portion of a sarcomere into two parts; mesophragma, *Q* line.

Hensen's node,—the primitive node, *q.v.*

Hensen's stripe,—a band of interlacing fibrils on under surface of tectorial membrane of Corti's organ.

hepar (hē'pār) *n.* [Gk. *hepar*, liver.] Liver, or an organ having a similar function.

heparin (hē'pār'in) *n.* [Gk. *hepar*, liver.] Substance present in liver and some other tissues, which inhibits formation, or action, of thrombin.

hepatic (hēpāt'ik) *a.* [Gk. *hepar*, liver.] *Pert.*, like, or associated with the liver; *pert.* liverworts.

hepaticology (hēp'atikōl'ōji) *n.* [Gk. *hepar*, liver; *logos*, discourse.] The study of Hepaticae or liverworts.

hepatobiliary (hěp'ätöbیلیári) *a.* [Gk. *hepar*, liver; L. *bilis*, bile.] *Appl.* a fibrous capsule enclosing hepatic vessels and bile duct, Glisson's capsule.

hepatocolic (hěp'ätököl'ík) *a.* [Gk. *hepar*, liver; *colon*, large intestine.] *Pert.* liver and colon.

hepatocystic (hěp'ätösłs'tík) *a.* [Gk. *hepar*, liver; *kystis*, bladder.] *Pert.* liver and gall-bladder.

hepatoduodenal (hěp'ätödū'ödē'nāl) *a.* [Gk. *hepar*, liver; L. *duodeni*, twelve each.] *Pert.* liver and duodenum.

hepatoenteric (hěp'ätöentēr'ík) *a.* [Gk. *hepar*, liver; *enteron*, gut.] Of or *pert.* liver and intestine.

hepatogastric (hěp'ätögās'trik) *a.* [Gk. *hepar*, liver; *gaster*, stomach.] *Pert.* liver and stomach.

hepatopancreas,—digestive gland in many invertebrates, supposed to perform a function similar to that of liver and of pancreas in higher forms.

hepatoportal (hěp'ätöpôr'tāl) *a.* [Gk. *hepar*, liver; L. *porta*, gate.] *Pert.* or designating portal circulation of liver.

hepatorenal (hěp'ätörē'nāl) *a.* [Gk. *hepar*, liver; L. *renes*, kidneys.] *Pert.* liver and kidney.

hepatoumbilical (hěp'ätöümbil'ikāl) *a.* [Gk. *hepar*, liver; L. *umbilicus*, navel.] Joining liver and umbilicus.

heptagynous (hěptāj'ínūs) *a.* [Gk. *hepta*, seven; *gyne*, female.] With seven pistils.

heptamerous (hěptām'ērūs) *a.* [Gk. *hepta*, seven; *meros*, part.] Having whorls of flowers in sevens.

heptandrous (hěptān'drūs) *a.* [Gk. *hepta*, seven; *aner*, man.] Having seven stamens.

heptarch (hěp'tārk) *a.* [Gk. *hepta*, seven; *arche*, beginning.] Having seven initial groups of xylem.

heptastichous (hěptās'tíkūs) *a.* [Gk. *hepta*, seven; *stichos*, row.] Arranged in seven rows; *appl.* leaves.

herb (hěrb) *n.* [L. *herba*, green

crop.] A seed plant without woody stem.

herbaceous (hěrbā'shūs) *a.* [L. *herbaceus*, grassy.] *Pert.* or being a herb, or similarly formed.

herbivorous (hěrbiv'örūs) *a.* [L. *herba*, green crop; *vorare*, to devour.] Eating or subsisting on herbs.

Herbst's corpuscle [*E. F. Herbst*, German anatomist]. A simple type of Pacinian corpuscle, in birds.

hercogamy (hěrkög'āmí) *n.* [Gk. *herkos*, barrier; *gamos*, union.] The condition in which self-fertilisation is impossible; also hercogamy.

hereditary (hěrd'itāri) *a.* [L. *hereditas*, heirship.] Transmissible from parent to offspring, as characteristics, physical or mental.

heredity (hěrd'iti) *n.* [L. *hereditas*, heirship.] The organic relation between successive generations; germinal constitution.

heritability (hě'rítābil'iti) *n.* [L. *hereditabilis*, that may be inherited.] Capacity for being transmitted from one generation to another; hereditary or genotypic variance expressed as percentage of total variance in the feature examined.

herkogamy,—hercogamy.

hermaphrodite (hěrmáf'rōdit) *n.* [Gk. *hermaphroditos*, combining both sexes.] An organism with both male and female reproductive organs. *a.* Hermaphroditic.

hermaphroditism (hěrmáf'rōditizm) *n.* [Gk. *hermaphroditos*, combining both sexes.] The condition of having both male and female reproductive organs in one individual.

hermetism (hěrmē'tizm) *n.* [Gk. *Hermes*.] The angiocarpic condition of fungi; angiocarpy.

herpetology (hě'r'pētöl'ōji) *n.* [Gk. *herpeton*, reptile; *logos*, discourse.] That part of zoology dealing with the structure, habits and classification of reptiles.

hesperidin (hěspēr'idin) *n.* [Gk. *Hesperides*.] Vitamin P, a bio-flavonoid, active principle of citrin, affecting permeability of capillaries.

hesperidium (hēs'pērīd'īūm) *n.* [Gk. *Hesperides*, sisters guarding the golden apples given by Gaia.] A superior, many-celled, few-seeded indehiscent fruit, having epicarp and mesocarp joined together, and endocarp projecting into interior as membranous partitions which divide the pulp into chambers; *e.g.* orange.

hesthogenous (hēsthōj'ēnūs) *n.* [Gk. *hesthes*, clothes; *-genes*, born.] Covered with down at hatching; dasypaedic.

heteracanthous (hēt'ērākān'thūs) *a.* [Gk. *heteros*, other; *akantha*, spine.] Having the spines in dorsal fin asymmetrical.

heteractinal (hēt'ērāk'tīnāl) *a.* [Gk. *heteros*, other; *aktis*, ray.] *Pert.* nail-like spicules having disc of six to eight rays in one plane, and a stout ray at right angles to these.

heterandrous (hēt'ērān'drūs) *a.* [Gk. *heteros*, other; *aner*, man.] With stamens of different length or shape.

heterauxesis (hēt'ērōksēs'īs) *n.* [Gk. *heteros*, other; *auxesis*, growth.] Irregular or asymmetrical growth of organs; relative growth rate of parts of an organism; heterogonic or allometric growth; bradyauxesis and tachyauxesis, *q.v.*

heterauxin,—heteroauxin, *q.v.*

heteraxial (hēt'ērāk'siāl) *a.* [Gk. *heteros*, other; *axis*, axis.] With three unequal axes.

heterecious,—heteroecious.

heteroagglutinin (hēt'ērōāglōot'īnīn) *n.* [Gk. *heteros*, other; L. *agglutinare*, to glue to.] Fertilisin or agglutinin of eggs which reacts on sperm of different species; *cf.* isoagglutinin.

heteroauxin (hēt'ērōōk'sīn) *n.* [Gk. *heteros*, other; *auxein*, to grow.] A growth-promoting hormone, extracted from fungi; heteroauxin; β -indolyl-acetic acid, $C_{10}H_9O_2N$.

heterobasidium (hēt'ērōbāsīd'īūm) *n.* [Gk. *heteros*, other; *basīs*, base; *idion*, *dim.*] A septate basidium

composed of a hypobasidium and epibasidium. *Opp.* homobasidium.

heteroblastic (hēt'ērōblās'tīk) *a.* [Gk. *heteros*, other; *blastos*, bud.] With indirect development.

heterobrachial (hēt'ērōbrā'kiāl) *a.* [Gk. *heteros*, other; L. *brachium*, arm.] *Pert.* chromosome arms on either side of centromere; pericentric.

heterocarpous (hēt'ērōkār'pūs) *a.* [Gk. *heteros*, other; *karpōs*, fruit.] Bearing two distinct types of fruit.

heterocaryo,—*see* heterokaryo.

heterocellular (hēt'ērōsēl'ūlār) *a.* [Gk. *heteros*, other; L. *cellula*, small cell.] Composed of cells of more than one type. *Opp.* homocellular.

heterocephalous (hēt'ērōkēf'ālūs, -sēf-) *a.* [Gk. *heteros*, other; *kephale*, head.] Having pistillate flowers on separate heads from staminate.

heterocercal (hēt'ērōsēr'kāl) *a.* [Gk. *heteros*, other; *kerkos*, tail.] Having vertebral column terminating in upper lobe of caudal fin, which is usually larger than lower.

heterocercy (hēt'ērōsēr'sī) *n.* [Gk. *heteros*, other; *kerkos*, tail.] Condition of having a heterocercal tail.

heterochlamydeous (hēt'ērōklāmīd'ēūs) *a.* [Gk. *heteros*, other; *chlamys*, cloak.] Having a calyx differing from corolla in colour, texture, etc.

heterochromatic (hēt'ērōkrōmāt'īk) *a.* [Gk. *heteros*, other; *chroma*, colour.] *Pert.* heterochromatin; *appl.* chromosomal regions liable to become heteropycnotic. *Opp.* euchromatic.

heterochromatin (hēt'ērōkrō'mātīn) *n.* [Gk. *heteros*, other; *chroma*, colour.] Chromatin retaining a high nucleic acid content and regulating nucleic acid metabolism in nucleus and cytoplasm.

heterochromatism (hēt'ērōkrō'mātīzm) *n.* [Gk. *heteros*, other; *chroma*, colour.] Change of colour, as seasonal colour change in an inflorescence.

heterochromaty,—differential staining.

heterochromia (hēt'ērōkrō'myā) *n.* [Gk. *heteros*, other; *chroma*, colour.] Difference in colour of parts normally of one colour, as of irides of a pair of eyes.

heterochromosome (hēt'ērōkrō'mō-sōm) *n.* [Gk. *heteros*, other; *chroma*, colour; *soma*, body.] A chromosome other than an ordinary or typical one; sex-chromosome; allosome. *Opp.* autosome, euchromosome.

heterochromous (hēt'ērōkrō'mūs) *a.* [Gk. *heteros*, other; *chroma*, colour.] Differently coloured; *appl.* disc and marginal florets. *Opp.* homochromous.

heterochronism (hēt'ērōk'rōnīzm) *n.* [Gk. *heteros*, other; *chronos*, time.] Departure from typical sequence in time of formation of organs; heterochrony.

heterochrosis (hēt'ērōkrō'sis) *n.* [Gk. *heteros*, other; *chrosis*, colouring.] Abnormal coloration.

heteroclinous (hēt'ērōkli'nūs) *a.* [Gk. *heteros*, other; *kline*, bed.] Heterocephalous, *q.v.*

heterocoelous (hēt'ērōsē'lūs) *a.* [Gk. *heteros*, other; *koilos*, hollow.] *Pert.* vertebrae with saddle-shaped articulatory centra; concavoconvex.

heterocont,—heterokont.

heterocysts (hēt'ērōsists) *n. plu.* [Gk. *heteros*, other; *kystis*, bladder.] Clear cells occurring at intervals on filaments of certain algae, marking limits of hormogonia.

heterodactylous (hēt'ērōdāk'tīlūs) *a.* [Gk. *heteros*, other; *daktylos*, digit.] With the first and second toes turned backwards.

heterodont (hēt'ērōdōnt) *a.* [Gk. *heteros*, other; *odous*, tooth.] Having the teeth differentiated for various purposes. *Opp.* homodont.

heterodromous (hēt'ērōd'rōmūs) *a.* [Gk. *heteros*, other; *dramein*, to run.] Having genetic spiral of stem leaves turning in different direction to that of branch leaves.

heteroecious (hēt'ērē'siūs) *a.* [Gk.

heteros, other; *oikos*, house.] Passing different stages of life history in different hosts; exhibiting heteroecism; metoecious, metoxenous.

heterogamete (hēt'ērōgāmēt') *n.* [Gk. *heteros*, other; *gametes*, spouse.] One of dissimilar conjugating gametes; an anisogamete.

heterogametic (hēt'ērōgāmēt'ik) *a.* [Gk. *heteros*, other; *gametes*, spouse.] Elaborating two kinds of gametes in equal numbers; having unequal pair of sex chromosomes, XY or WZ; *appl.* sex that is heterozygous; reproducing sexually; digametic; *cf.* homogametic.

heterogamous (hēt'ērōg'āmūs) *a.* [Gk. *heteros*, other; *gamos*, marriage.] With unlike gametes; having two types of flowers; having indirect pollination methods.

heterogamy (hēt'ērōg'āmi) *n.* [Gk. *heteros*, other; *gamos*, offspring.] Alternation of two sexual generations, one being true sexual, the other parthenogenetic; condition of having, or union of, gametes of different size and structure; anisogamy.

heterogangliate (hēt'ērōgāng'glīāt) *a.* [Gk. *heteros*, other; *gangglion*, ganglion.] With widely separated and asymmetrically placed nerve-ganglia.

heterogenesis (hēt'ērōjēn'ēsīs) *n.* [Gk. *heteros*, other; *genesis*, descent.] Spontaneous generation; alternation of generations.

heterogenetic (hēt'ērōjēnēt'ik) *a.* [Gk. *heteros*, other; *genesis*, descent.] Descended from different ancestral stock; *pert.* heterogenesis.

heterogenous (hēt'ērōj'ēnūs) *a.* [Gk. *heteros*, other; *genes*, produced.] Having a different origin; not originating in the body; *pert.* heterogeny.

heterogeny (hēt'ērōj'ēni) *n.* [Gk. *heteros*, other; *genos*, generation.] Having several distinct generations succeeding one another in a regular series.

heterogonic (hēt'ērōgōn'ik) *a.* [Gk. *heteros*, other; *gonos*, produce.] Differing in developmental or growth rate; allometric.

heterogonous (hët'ërog'önüs) *a.* [Gk. *heteros*, other; *gonos*, birth.] *Pert.* heterogenesis, or heterogony.

heterogony (hët'ërog'önì) *n.* [Gk. *heteros*, other; *gonos*, birth.] Condition of having two, or three, kinds of flowers differing in length of stamen; alternation of generations; allometry, *q.v.*

heterogynous (hët'ëroj'inüs) *a.* [Gk. *heteros*, other; *gyne*, woman.] With two types of females.

heteroicous,—heteroocious.

heterokaryon (hët'ërokär'ion) *n.* [Gk. *heteros*, other; *karyon*, nucleus.] An individual having heterokaryotic cells; a cell formed by fusion of hyphal cells, the haploid nuclei remaining separate.

heterokaryosis (hët'ërokär'ö'sis) *n.* [Gk. *heteros*, other; *karyon*, nucleus.] Presence of genetically dissimilar nuclei within individual cells; heterokaryotic condition.

heterokaryote (hët'ërokär'iöt) *a.* [Gk. *heteros*, other; *karyon*, nucleus.] Having two distinct types of nuclei.

heterokaryotic (hët'ërokär'iöt'ik) *a.* [Gk. *heteros*, other; *karyon*, nucleus.] Having genetically dissimilar nuclei, in a multinucleate cell, or in different cells of a hypha; heterokaryote.

heterokinesis (hët'ërokînē'sis) *n.* [Gk. *heteros*, other; *kinein*, to move.] Qualitative or differential division of chromosomes.

heterokont (hët'ërokönt) *a.* [Gk. *heteros*, other; *kontos*, punting-pole.] Having flagella or cilia of unequal length. *Opp.* isokont.

heterolecithal (hët'ërolēs'ithäl) *a.* [Gk. *heteros*, other; *lekithos*, yolk.] Having unequally distributed deutoplasm.

heterologous (hët'ërol'ögüs) *a.* [Gk. *heteros*, other; *logos*, relation.] Of different origin; derived from a different species; differing morphologically, *appl.* alternating generations; *appl.* various substances, *e.g.* agglutinins, affecting other than species of origin; *cf.* homologous.

heterology (hët'ërol'öjì) *n.* [Gk. *heteros*, other; *logos*, relation.] Non-correspondence of parts owing to different origin or different elements.

heterolysis (hët'ërol'isìs) *n.* [Gk. *heteros*, other; *lysis*, loosing.] Cell or tissue disintegration by action of exogenous agents or enzymes. *Opp.* autolysis.

heterolytic (hët'ërolit'ik) *a.* [Gk. *heteros*, other; *lyein*, to dissolve.] Causing or *pert.* heterolysis. *Opp.* autolytic.

heteromallous (hët'ëromäl'üs) *a.* [Gk. *heteros*, other; *mallos*, lock of wool.] Spreading in different directions.

heteromastigote (hët'ëromästä'göt) *a.* [Gk. *heteros*, other; *mastix*, lash.] Having two different types of flagella; heteromastigote.

heteromerous (hët'ërom'erüs) *a.* [Gk. *heteros*, other; *meros*, part.] Having, or consisting of, an unequal number of parts, *appl.* whorls, tarsi, etc.; having a stratified thallus.

heterometabolic (hët'ëromētäböl'ik) *a.* [Gk. *heteros*, other; *metabole*, change.] Having incomplete metamorphosis.

heteromorphic (hët'ëromôr'fik) *a.* [Gk. *heteros*, other; *morphe*, shape.] Having different forms at different times; *appl.* chromosomes of different size and shape, or chromosome pairs differing in size; *appl.* alternation of diploid and haploid phases in morphologically dissimilar generations, antithetic; heteromorphous, *q.v.*

heteromorphism (hët'ëromôr'fizm) *n.* [Gk. *heteros*, other; *morphe*, shape.] The state or quality of being heteromorphic.

heteromorphosis (hët'ëromôr'fösìs) *n.* [Gk. *heteros*, other; *morphosis*, shaping.] Production of a part in an abnormal position; regeneration, when the new part is different from that removed; *cf.* homeosis.

heteromorphous (hët'ëromôr'füs) *a.* [Gk. *heteros*, other; *morphe*, shape.] *Pert.* an irregular structure, or departure from the normal.

heteronereis (hēt'ērōnē'rēis) *n.* [Gk. *heteros*, other; *Nereis*, Nereid.] A free-swimming dimorphic sexual stage of Nereis and other marine worms.

heteronomous (hēt'ērōn'ōmūs) *a.* [Gk. *heteros*, other; *nómos*, law.] Subject to different laws of growth; specialised on different lines. [Gk. *heteros*, other; *nomós*, department.] *Appl.* segmentation into dissimilar segments.

heteropelmous (hēt'ērōpēl'mūs) *a.* [Gk. *heteros*, other; *pelma*, sole of foot.] Having flexor tendons of toes bifid.

heteropetalous (hēt'ērōpēt'ālūs) *a.* [Gk. *heteros*, other; *petalon*, leaf] With dissimilar petals.

heterophagous (hēt'ērōf'āgūs) *a.* [Gk. *heteros*, other; *phagein*, to eat.] Having young in altrices condition.

heterophil (hēt'ērōfil) *a.* [Gk. *heteros*, other; *philos*, loving.] *Appl.* non-specific antigens and antibodies present in an organism, affording natural immunity; *appl.* granular leucocytes which show interspecific differences in their reaction to stains. *n.* Polymorphonuclear leucocyte.

heterophyadic (hēt'ērōfiād'ik) *a.* [Gk. *heteros*, other; *phyas*, shoot.] Producing separate shoots, one vegetative, one reproductive.

heterophyllous (hēt'ērōfil'ūs) *a.* [Gk. *heteros*, other; *phyllon*, leaf.] Bearing foliage leaves of different shape on different parts of the same plant; having lamellae of different size or shape, as some agarics.

heterophylly,—heterophyllous condition.

heterophyte (hēt'ērōfit) *n.* [Gk. *heteros*, other; *phyton*, plant.] A plant obtaining nourishment from dead or living organisms, or from their products; a heterotrophic, saprophytic, or parasitic plant. *Opp.* autophyte.

heterophytic (hēt'ērōfit'ik) *a.* [Gk. *heteros*, other; *phyton*, plant.] With two kinds of spores, borne by

different sporophytes; *cf.* homophytic.

heteroplanogametes (hēt'ērōplān'ō-gāmēts') *n. plu.* [Gk. *heteros*, other; *planos*, wandering; *gametes*, spouse.] Motile gametes that are unlike one another.

heteroplasia (hēt'ērōplā'siā) *n.* [Gk. *heteros*, other; *plassein*, to mould.] The development of one tissue from another of a different kind.

heteroplasm (hēt'ērōplāzm) *n.* [Gk. *heteros*, other; *plasma*, mould.] Tissue formed in abnormal places.

heteroplasma (hēt'ērōplāzmā) *n.* [Gk. *heteros*, other; *plasma*, mould.] Plasma from a different species used as a medium for tissue culture; *cf.* autoplasma, homoplasma.

heteroplastic (hēt'ērōplās'tik) *a.* [Gk. *heteros*, other; *plastos*, formed.] *Appl.* grafts of unrelated material; *appl.* transplantation between individuals of different species or genera, *opp.* homioplasic; *cf.* xenoplastic.

heteroploid (hēt'ērōploid) *a.* [Gk. *heteros*, other; *haploos*, onefold.] Having an extra chromosome through non-disjunction of a pair in meiosis; not having a multiple of the basic haploid number of chromosomes. *n.* An organism having heteroploid nuclei.

heteroproteose (hēt'ērōprō'tēōs) *n.* [Gk. *heteros*, other; *protos*, first.] One of primary products formed by action of gastric juices on other hydrolysing agents on proteins; propeptone.

heteropycnosis (hēt'ērōpiknō'sis) *n.* [Gk. *heteros*, other; *pyknos*, dense.] Condensation of sex-chromosome during growth-period stages of gonidia and cytes; condition of chromosome region or of chromosomes synthesising more or less nucleic acid than remainder of chromosome set.

heteropycnotic (hēt'ērōpiknōt'ik) *a.* [Gk. *heteros*, other; *pyknos*, dense.] *Appl.* chromosome manifesting heteropycnosis.

heterorhizal (hêt'êrôri'zâl) *a.* [Gk. *heteros*, other; *rhiza*, root.] With roots coming from no determinate point.

heterosexual (hêt'êrôsêk'sûâl) *a.* [Gk. *heteros*, other; L. *sexus*, sex.] Of, or *pert.* the opposite sex; *appl.* hormones, etc.

heterosis (hêt'êrô'sis) *n.* [Gk. *heteros*, other.] Cross-fertilisation; hybrid vigour, result of heterozygosis.

heterosomal (hêt'êrôsô'mâl) *a.* [Gk. *heteros*, other; *soma*, body.] Occurring in, or *pert.*, different bodies; *appl.* rearrangements in two or more chromosomes of a set.

heterosome (hêt'êrôsôm) *n.* [Gk. *heteros*, other; *soma*, body.] A heterochromosome.

heterosporangic (hêt'êrôspôrân'jik) *a.* [Gk. *heteros*, other; *sporos*, seed; *anggeion*, vessel.] Bearing two kinds of spores in separate sporangia.

heterosporous (hêt'êrôs'pôrus, hêt'êrôspô'rûs) *a.* [Gk. *heteros*, other; *sporos*, seed.] Producing two kinds of spores; heterosporic.

heterosporry (hêt'êrôs'pôri) *n.* [Gk. *heteros*, other; *sporos*, seed.] The condition of being heterosporous; the production of megaspores and microspores.

heterostemonous (hêt'êrôstêm'ônûs) *a.* [Gk. *heteros*, other; *stemon*, stamen.] With unlike stamens.

heterostrophy (hêt'êrôs'trôfi) *n.* [Gk. *heteros*, other; *strophe*, turning.] The condition of being coiled in a direction opposite to normal.

heterostyled (hêt'êrôsti'ld) *a.* [Gk. *heteros*, other; *stylos*, pillar.] Having unlike or unequal styles; heterostylic.

heterostyly (hêt'êrôsti'li) *n.* [Gk. *heteros*, other; *stylos*, pillar.] Condition of being heterostyled.

heterosynapsis (hêt'êrôsinâp'sis) *n.* [Gk. *heteros*, other; *synapsis*, union.] Pairing of two dissimilar chromosomes; *cf.* homosynapsis.

heterotaxis (hêt'êrôtâk'sis) *n.* [Gk. *heteros*, other; *taxis*, arrangement.]

Abnormal or unusual arrangement of organs or parts.

heterothallic (hêt'êrôthâl'ik) *a.* [Gk. *heteros*, other; *thallos*, young shoot.] Requiring branches of two distinct mycelia to form a zygospore; *appl.* moulds; *cf.* homothallic.

heterothallism,—heterothallic condition.

heterothermal (hêt'êrôthêr'mâl) *a.* [Gk. *heteros*, other; *therme*, heat.] *Appl.* animals whose temperature varies with that of the surrounding medium; poikilothermal. *Opp.* homoiothermal.

heterotic (hêt'êrôt'ik) *a.* [Gk. *heteros*, other.] *Pert.* heterosis; *appl.* vigour.

heterotomy (hêt'êrôt'ômi) *n.* [Gk. *heteros*, other; *temnein*, to cut.] Condition of having parts of perianth whorls unequal or dissimilar; irregular dichotomy in Crinoidea.

heterotopy (hêt'êrôt'ôpi) *n.* [Gk. *heteros*, other; *topos*, place.] Displacement; abnormal habitat.

heterotrichous (hêt'êrôt'rikûs) *a.* [Gk. *heteros*, other; *thrix*, hair.] Having two types of cilia; having thallus consisting of prostrate and erect filaments, as certain algae.

heterotrophic (hêt'êrôt'rôf'ik) *a.* [Gk. *heteros*, other; *trophe*, nourishment.] Getting nourishment from organic substances; *appl.* parasitic plants; *opp.* autotrophic.

heterotropic chromosome, — sex-chromosome, *q.v.*

heterotropous (hêt'êrôt'röpûs) *a.* [Gk. *heteros*, other; *trepein*, to turn.] *Pert.* ovule with hilum and micropyle at opposite ends in a plane parallel to placenta; heterotropic.

heterotype (hêt'êrôtîp) *n.* [Gk. *heteros*, other; *typos*, pattern.] First meiotic division.

heterotypic (hêt'êrôtîp'ik) *a.* [Gk. *heteros*, other; *typos*, pattern.] *Pert.* mitotic division in which daughter chromosomes remain united and form rings; *appl.* first or reduction division in meiosis; *cf.* homeotypic.

heterotypical (hēt'ērōtīp'ikāl) *a.* [Gk. *heteros*, other; *typos*, pattern.]

Appl. a genus comprising species that are not truly related.

heteroxenous (hēt'ērōzēn'ūs, -ōk'sē-nūs) *a.* [Gk. *heteros*, other; *xenos*, host.] Occurring on or infesting more than one kind of host; heteroecious.

heterozygosis (hēt'ērōzīgō'sis) *n.* [Gk. *heteros*, other; *zygon*, yoke.]

Descent from two different species, varieties, or races.

heterozygote (hēt'ērōzī'gōt) *n.* [Gk. *heteros*, other; *zygon*, yoke.] An organism having alternative forms of a gene; an impure dominant; a heterozygous organism.

heterozygous (hēt'ērōzīgūs) *a.* [Gk. *heteros*, other; *zygon*, yoke.] Bearing two dissimilar alternative genetic factors.

hexacanth (hēk'sākānth) *a.* [Gk. *hex*, six; *akantha*, thorn.] Having six hooks; *appl.* embryo of certain flat-worms.

hexactinal (hēk'sāk'tīnāl) *a.* [Gk. *hex*, six; *aktis*, ray.] With six rays.

hexactine (hēk'sāk'tīn) *n.* [Gk. *hex*, six; *aktis*, ray.] A spicule with six equal and similar rays meeting at right angles.

hexactinian (hēk'sāk'tīn'īān) *a.* [Gk. *hex*, six; *aktis*, ray.] With tentacles or mesenteries in multiples of six.

hexacyclic (hēk'sāsī'klik) *a.* [Gk. *hex*, six; *kyklos*, circle.] Having floral whorls consisting of six parts.

hexagynous (hēksāj'inūs) *a.* [Gk. *hex*, six; *gyne*, woman.] Having six pistils.

hexamerous (hēksām'ērūs) *a.* [Gk. *hex*, six; *meros*, part.] Occurring in sixes, or arranged in sixes.

hexandrous (hēksān'drūs) *a.* [Gk. *hex*, six; *aner*, man.] Having six stamens.

hexapetaloid (hēk'sāpēt'āloid) *a.* [Gk. *hex*, six; *petalon*, petal; *eidos*, form.] With petaloid perianth of six parts.

hexapetalous (hēk'sāpēt'ālūs) *a.*

[Gk. *hex*, six; *petalon*, petal. Having six petals.

hexaphyllous (hēk'sāfil'ūs) *a.* [Gk. *hex*, six; *phyllon*, leaf.] Having six leaves.

hexaploid (hēk'sāploid) *a.* [Gk. *hex*, six; *haploos*, simple; *eidos*, form.] With six sets of chromosomes. *n.* An organism having six times the monoploid chromosome number.

hexapod (hēk'sāpōd) *a.* [Gk. *hex*, six; *pous*, foot.] *Pert.* animal with six legs. *n.* An insect.

hexapterous (hēksāp'tērūs) *a.* [Gk. *hex*, six; *pteron*, wing.] Having six wing-like processes or expansions.

hexarch (hēk'sārk) *a.* [Gk. *hex*, six; *arche*, beginning.] Having six radiating vascular strands; *appl.* roots.

hexasepalous (hēk'sāsēp'ālūs) *a.* [Gk. *hex*, six; *F. sépale*, sepal.] Having six sepals.

hexaspermous (hēk'sāspēr'mūs) *a.* [Gk. *hex*, six; *sperma*, seed.] Having six seeds.

hexasporous (hēk'sāspō'rūs) *a.* [Gk. *hex*, six; *sporos*, seed.] Having six spores.

hexastemonous (hēk'sāstēm'ōnūs) *a.* [Gk. *hex*, six; *stemon*, stamen.] Having six stamens; hexandrous.

hexaster (hēksās'tēr) *n.* [Gk. *hex*, six; *aster*, star.] A variety of hexactine in which the rays branch and produce star-shaped figures.

hexastichous (hēksās'tīkūs) *a.* [Gk. *hex*, six; *stichos*, row.] Having the parts arranged in six rows.

hexicology (hēk'sīkōl'ōjī) *n.* [Gk. *hexis*, habit; *logos*, discourse.] Bionomics.

hexuronic acid,—ascorbic acid or vitamin C.

hiatus (hiā'tūs) *n.* [L. *hiare*, to gape.] Any large opening.

hibernaculum (hī'bērnāk'ulūm) *n.* [L. *hibernaculum*, winter-quarters.]

A winter bud; specially modified winter bud in fresh-water Polyzoa.

hibernal (hībēr'nāl) *a.* [L. *hibernus*, wintry.] Of the winter; hiemal.

hibernate (hī'bĕrnāt) *v.* [*L. hibernus*, wintry.] To pass the winter in a resting state.

hibernating glands,—lymph glands of richly vascularised fatty tissue occurring in some rodents and insectivores.

hidrosis (hīdrō'sis) *n.* [*Gk. hidros*, sweat.] Excretion of sweat; perspiration.

hiemal (hī'ēmāl) *a.* [*L. hiems*, winter.] *Pert.* winter; *appl.* aspect of a community.

Highmore's antrum [*N. Highmore*, English surgeon]. The maxillary sinus, which communicates with the middle meatus of the nose.

Highmore's body,—corpus highmoreanum, mediastinum testis.

hilar (hī'lār) *a.* [*L. hilum*, trifle.] Of or *pert.* a hilum; *appl.* appendix of spores.

hiliferous (hīlīf'ērūs) *a.* [*L. hilum*, trifle; *ferre*, to carry.] Having a hilum.

hilum (hī'lūm) *n.* [*L. hilum*, trifle.] Scar on ovule where it was attached to placenta; eye of seed; nucleus of starch grain; small notch, opening, or depression, usually where vessels, nerves, etc., enter, of kidney, lung, spleen, etc.; also hilus.

hind brain,—rhombencephalon, that portion of brain derived from third embryonic vesicle.

hind gut,—diverticulum of yolk-sac extending into tail-fold in human embryo; posterior portion of alimentary tract.

hind-kidney,—metanephros.

hinge-cells,—large epidermal cells which, by changes in turgor, control rolling and unrolling of a leaf.

hinge-joint,—a joint in which articulatory surfaces are so moulded as to permit motion in one plane only; ginglymus.

hinge-ligament,—the tough elastic substance joining the two valves of a bivalve shell.

hinge-line,—the line of articulation of the two valves in a bivalve shell.

hinge-tooth,—one of the projections found on the hinge-line in bivalves.

hinoid (hī'noid) *a.* [*Gk. his*, nerve; *eidos*, form.] With parallel veins at right angles to mid-rib, *appl.* leaf-type.

hip-joint,—the ball-and-socket joint between femur and hip-girdle.

hippocampal (hip'ökām'pāl) *a.* [*Gk. hippos*, horse; *kampe*, bend.] *Pert.* the hippocampus.

hippocampus (hip'ökām'pūs) *n.* [*Gk. hippos*, horse; *kampe*, bend.] Part of rhinencephalon forming an eminence extending throughout length of floor of inferior cornu of lateral ventricle; hippocampus major.

hippocampus minor,—calcar avis.

hippocrepiān (hip'ōkrē'piān) *a.* [*Gk. hippos*, horse; *krepis*, shoe.] Shaped like a horse-shoe; hippocrepiiform.

hippuric (hipū'rik) *a.* [*Gk. hippos*, horse; *ouron*, urine.] Obtained from horse's urine; *appl.* acid, benzoyl glycine, $C_9H_9O_3N$, synthesised by kidney and present in urine of herbivorous animals.

hirsute (hīrsūt') *a.* [*L. hirsutus*, shaggy.] Covered with hair-like feathers, *appl.* birds; having stiff, hairy bristles or covering.

hirudin (hīrū'din) *n.* [*L. hirudo*, leech.] A substance, obtained in solution from buccal glands of leech, which prevents clotting of blood by inhibiting action of thrombin on fibrinogen.

His' bundle [*W. His*, German anatomist]. Band of muscle fibres, with nerve fibres, connecting auricles and ventricles of heart; atrioventricular or auriculoventricular bundle; Gaskell's bridge.

hispid (hīs'pid) *a.* [*L. hispidus*, rough.] Having stiff hairs, spines, or bristles.

histamine (hīs'tāmin) *n.* [*Gk. histos*, tissue; *ammoniakon*, resinous gum.] Product of the basic amino acid and food constituent histidine, in ergot and animal tissues, stimulates autonomic nervous system, gastric juice secretion, and capillary dilatation; $C_8H_9N_3$.

histioblast (his'tiöbläst) *n.* [Gk. *hístion*, tissue; *blastos*, bud.] An immature histiocyte.

histiocyte (his'tiösit) *n.* [Gk. *hístion*, tissue; *kytos*, hollow.] A primitive blood cell giving rise to a monocyte; a monocyte of reticular origin, or a clasmatoocyte derived from endothelium, a reticulo-endothelial cell; fixed macrophage in loose connective tissue; adventitial cell; rhagiocrine cell.

histiogenic,—histogenic.

histioid (his'tioid) *a.* [Gk. *hístion*, web; *eidos*, form.] Like a web, arachnoid; tissue-like.

histiomonocyte (his'tiömön'ösit) *n.* [Gk. *hístion*, tissue; *monos*, alone; *kytos*, hollow.] An endothelial cell of certain capillaries and associated with the histiocytic metabolic system.

histiotypic (his'tiötíp'ík) *a.* [Gk. *hístion*, tissue; *typos*, pattern.] *Appl.* uncontrolled or unorganised growth of cells, in tissue culture. *Opp.* organotypic.

histoblast (his'töbläst) *n.* [Gk. *hístos*, tissue; *blastos*, bud.] A unit of tissue; imaginal disc.

histochemistry (his'tökëm'ístri) *n.* [Gk. *hístos*, tissue; *chemeia*, transmutation.] The chemistry of animal tissues.

histocyte (his'tösit) *n.* [Gk. *hístos*, tissue; *kytos*, hollow.] Tissue cell as distinguished from germ cell.

histogenesis (his'töjën'ësis) *n.* [Gk. *hístos*, tissue; *genesis*, descent.] Formation and development of tissue.

histogenic (his'töjën'ík) *a.* [Gk. *hístos*, tissue; *-genes*, producing.] Tissue-producing; *appl.* the separate merismatic layers in a stratified growing point.

histogenous,—produced in or from tissue; *appl.* cavities, conidia, etc.

histogens (his'töjënz) *n. plu.* [Gk. *hístos*, tissue; *gennaein*, to produce.] Tissue-producing zones or layers: plerome, periblem, dermatogen, and calyptrogen.

histohaematin (his'töhëm'ätin) *n.* [Gk. *hístos*, tissue; *haima*, blood.] An intracellular haemin compound; a cytochrome.

histology (hístöl'öjl) *n.* [Gk. *hístos*, tissue; *logos*, discourse.] The science which treats of the detailed structure of animal or plant tissues; microscopic morphology; histomorphology.

histolysis (hístöl'ísis) *n.* [Gk. *hístos*, tissue; *lyein*, to dissolve.] The dissolution of organic tissues; process by which most of pupal internal organs dissolve into creamy fluid, except certain cells round which new imaginal tissues are formed.

histometabasis (his'tömëtäb'ásis) *n.* [Gk. *hístos*, tissue; *metabasis*, alteration.] Fossilisation with retention of the detailed structure of plant or animal tissues.

histone (his'tön) *n.* [Gk. *hístos*, tissue.] A protein constituent of cell nuclei, thymus, blood corpuscles, and lymph glands.

histophyly (hístöfí'li) *n.* [Gk. *hístos*, tissue; *phyle*, tribe.] Phylogenetic history of a group of cells.

histoteleosis (his'tötële'ösís) *n.* [Gk. *hístos*, tissue; *teleios*, full-grown.] The completion of functional differentiation of tissue cells.

histotrophic (his'töt Röf'ík) *a.* [Gk. *hístos*, tissue; *trephein*, to nourish.] *Pert.* or connected with tissue formation or repair.

histozoic (his'tözö'ík) *a.* [Gk. *hístos*, tissue; *zoon*, animal.] Living within tissues; *appl.* trophozoitic stage of certain Sporozoa.

histozyme (his'tözim) *n.* [Gk. *hístos*, tissue; *zyme*, leaven.] An enzyme found in kidneys of certain animals, and in fungi capable of decomposing hippuric acid; hippuricase.

hock (hök) *n.* [A.S. *hoh*, heel.] The tarsal joint, or its region; hough.

holandric (hölä'n'drík) *a.* [Gk. *holos*, whole; *aner*, male.] *Pert.* holandry; transmitted from male to male through the Y-chromosome; *appl.* sex-linked characters.

holandry (hölän'dri) *n.* [Gk. *holos*, whole ; *aner*, male.] The condition of having full number of testes, as two pairs in Oligochaeta ; *cf.* meroandry.

holarctic (hölärk'tik) *a.* [Gk. *holos*, whole ; *Arktos*, Great Bear.] *Appl.* or *pert.* a zoogeographical region including northern parts of the Old and New Worlds or palaeartic and nearctic sub-regions.

holard (hölärd') *n.* [Gk. *holos*, whole ; *ardo*, I water.] Total water content of soil ; *cf.* chresard, echart.

holaspidean (höl'äspid'ëän) *a.* [Gk. *holos*, whole ; *aspis*, shield.] With single series of large scales on posterior aspect of tarso-metatarsus.

holcodont (höl'ködönt) *a.* [Gk. *holkos*, furrow ; *odous*, tooth.] Having the teeth in a long continuous groove.

holdfast,—a sucker or disc-like extension of a thallus, primarily for attachment, as appressorium, hapteron, hyphopodium, stomatopodium.

holobasidium (höl'öbäsíd'íüm) *n.* [Gk. *holos*, whole ; *basís*, base ; *idion*, *dim.*] A basidium not divided by septa.

holobenthic (höl'öbén'thik) *a.* [Gk. *holos*, whole ; *benthos*, depths.] Living in depths of sea throughout life.

holoblastic (höl'öbläs'tik) *a.* [Gk. *holos*, whole ; *blastos*, bud.] *Pert.* eggs with total cleavage.

holobranch (höl'öbrängk) *n.* [Gk. *holos*, whole ; *branchia*, gills.] A gill in which gill filaments are borne on both sides.

holocarpic (höl'ökär'pik) *a.* [Gk. *holos*, whole ; *karpós*, fruit.] Having the fruit-body formed by the entire thallus ; *appl.* fungi without rhizoids or haustoria, living in host cell, as certain Phycomycetes. *Opp.* eucarpic.

Holocene (höl'ösën) *a.* [Gk. *holos*, whole ; *kainos*, recent.] Recent geological epoch following Pleistocene ; postglacial age.

holochlamydate (höl'ökläm'idät) *a.*

[Gk. *holos*, whole ; *chlamys*, cloak.] Having no notch on mantle margin.

holochroal (höl'ökrö'äl) *a.* [Gk. *holos*, whole ; *chros*, close.] Having eyes with globular or biconvex lenses closely crowded together, so that cornea is continuous over whole eye.

holocrine (höl'ökrin) *a.* [Gk. *holos*, whole ; *krinein*, to separate.] *Appl.* glands in which secretory cells disintegrate and form part of secretion, as sebaceous glands ; *cf.* apocrine, merocrine.

holocyclic (höl'ösik'lik) *a.* [Gk. *holos*, whole ; *kyklos*, circle.] *Pert.* or completing alternation of sexual and parthenogenetic generations.

holodikaryotic (höl'ödi'käríöt'ik) *a.* [Gk. *holos*, whole ; *dis*, double ; *karyon*, nucleus.] Having a pair of nuclei and lacking a haploid phase.

holoenzyme (höl'oën'zim) *n.* [Gk. *holos*, whole ; *en*, in ; *zyme*, leaven.] An enzyme consisting of an apo-enzyme and co-enzyme, neither of which is active by itself.

hologametes (höl'ögamëts') *n. plu.* [Gk. *holos*, whole ; *gametes*, spouse.] Fully developed protozoa taking part in syngamy. *Opp.* mero-gametes.

hologamy (hölög'amí) *n.* [Gk. *holos*, whole ; *gamos*, marriage.] Macro-gamy ; condition of having gametes similar to somatic cells.

hologastrula (höl'ögas'troolä) *n.* [Gk. *holos*, whole ; *gaster*, stomach.] Gastrula formed from holoblastic egg.

holognathous (hölög'näthüs) *a.* [Gk. *holos*, whole ; *gnathos*, jaw.] Having the jaw in a single piece.

hologonidium,—soredium, *q.v.*

hologynic (hölöjín'ik) *a.* [Gk. *holos*, whole ; *gyne*, woman.] Transmitted direct from female to female ; *appl.* sex-linked characters.

holomastigote (höl'ömäs'tigöt) *a.* [Gk. *holos*, whole ; *mastix*, whip.] Having one type of flagellum scattered evenly over the body.

holometabolic (höl'ömētāböl'ik) *a.* [Gk. *holos*, whole; *metabole*, change.] Having complete metamorphosis.

holometabolism (höl'ömētāb'ölizm) *n.* [Gk. *holos*, whole; *metabole*, change.] State of having complete metamorphosis. *Opp.* hemimetabolism.

holomorphosis (höl'ômôr'fösis) *n.* [Gk. *holos*, whole; *morphe*, shape.] Regeneration in which the entire part is replaced.

holonephridia,—meganephridia, *q.v.*

holonephros (höl'önēf'rös) *n.* [Gk. *holos*, whole; *nephros*, kidney.] The hypothetical continuous excretory organ.

holoparasite (höl'öpär'āsīt) *n.* [Gk. *holos*, whole; *parasitos*, parasite.] A parasite which cannot exist independently of a host; obligate parasite.

holophyte (höl'öfit) *n.* [Gk. *holos*, whole; *phyton*, plant.] Any green or phototrophic independent plant.

holophytic (höl'öfit'ik) *a.* [Gk. *holos*, whole; *phyton*, plant.] Obtaining the whole of its food after the manner of a plant; phototrophic. *Opp.* holozoic.

holoplankton (höl'öplängktön) *n.* [Gk. *holos*, whole; *planktos*, wandering.] The marine or fresh-water organisms which complete their life cycle while drifting with the surrounding water.

holoplanktonic (höl'öplängktön'ik) *a.* [Gk. *holos*, whole; *planktos*, wandering.] Living near the surface of sea, or of lake, throughout life; *pert.* holoplankton.

holopneustic (höl'önü'stik) *a.* [Gk. *holos*, whole; *pnein*, to breathe.] With all spiracles open for respiration.

holoptic (hölöp'tik) *a.* [Gk. *holos*, whole; *ops*, eye.] Having eyes of two sides meeting in a coadapted line of union. *Opp.* dichoptic.

holorrhinal (höl'öri'näl) *a.* [Gk. *holos*, whole; *rhines*, nostrils.] Having nares with posterior margin rounded. *Opp.* schizorrhinal.

holosaprophyte (höl'ösäp'röfit) *n.* [Gk. *holos*, whole; *sapros*, rotten; *phyton*, plant.] Any obligate saprophyte.

holoschisis (hölös'kisis) *n.* [Gk. *holos*, whole; *schizein*, to cut.] Amitosis.

holosericeous (höl'ösērish'ūs) *a.* [Gk. *holos*, whole; L.L. *sericeus*, silken.] Completely covered with silky hairlike structures; having a silky lustre or sheen.

holostomatous (höl'östöm'ätüs) *a.* [Gk. *holos*, whole; *stoma*, mouth.] With margin of aperture entire.

holostyly (höl'östī'li) *n.* [Gk. *holos*, whole; *stylos*, pillar.] Primitive condition of jaw suspension in some fishes.

holosystolic (höl'ösistöl'ik) *a.* [Gk. *holos*, whole; *systole*, contraction.] *Pert.* complete systole.

holotrichous (hölöt'rīkūs) *a.* [Gk. *holos*, whole; *thrix*, hair.] Having a uniform covering of cilia over the body.

holotype (höl'ötīp) *n.* [Gk. *holos*, whole; *typos*, pattern.] The single specimen chosen for designation of a new species.

holozoic (höl'özō'ik) *a.* [Gk. *holos*, whole; *zoon*, animal.] Obtaining the whole of its food after the manner of animals; ingulfing solid food particles. *Opp.* holophytic.

homacanth (höm'ākānth) *a.* [Gk. *homos*, same; *akantha*, spine.] Having spines of dorsal fin symmetrical.

homaxonic (hömäksön'ik) *a.* [Gk. *homos*, same; *axon*, axis.] Built up around equal axes; homaxial.

homeo-, also homoeo-, homioo-

homeochronous,—homochronous.

homeokinesis (höm'öökīnē'sis) *n.* [Gk. *homoios*, alike; *kinein*, to move.] Mitosis with equal division of chromatinic elements to daughter nuclei.

homeostasis (hömëös'täsis) *n.* [Gk. *homoios*, alike; *stasis*, standing.] The balance of nature; maintenance of equilibrium between organism and environment; the constancy of the internal environment of the body, as in birds and mammals.

homeostat (hõm'ëöstät) *n.* [Gk. *homoios*, alike; *statos*, standing.] Any cytoplasmic or non-genic carrier of a heritable character.

homeosynapsis,—homosynapsis, *q.v.*

homeotely (hõm'ëöt'ëli) *n.* [Gk. *homoios*, alike; *telos*, end.] Evolution from homologous parts, but with less close resemblance.

homeotypic (hõm'ëötíp'ik) *a.* [Gk. *homoios*, alike; *typos*, character.] *Appl.* second division in meiosis, similar to typical mitosis; *cf.* heterotypic.

homeozoic (hõm'ëözö'ik) *a.* [Gk. *homoios*, alike; *zoon*, animal.] *Pert.* a region or series of regions with identical fauna.

homobasidium (hõm'obäsid'füm) *n.* [Gk. *homos*, same; *basis*, base; *idion*, *dim.*] A typical non-septate basidium. *Opp.* heterobasidium.

homobium (hõmõ'biüm) *n.* [Gk. *homos*, same; *bios*, life.] The interdependence and mutual life of fungus and alga in lichens.

homoblastic (hõm'obläs'tik) *a.* [Gk. *homos*, same; *blastos*, bud.] Having direct embryonic development; arising from similar cells.

homobrachial (hõm'öbrä'kiäl) *a.* [Gk. *homos*, same; *L. brachium*, arm.] *Pert.* the same chromosome arm; paracentric.

homocarpous (hõm'ökär'püs) *a.* [Gk. *homos*, same; *karpos*, fruit.] Bearing one kind of fruit.

homocellular (hõm'ösél'ülar) *a.* [Gk. *homos*, same; *L. cellula*, small cell.] Composed of cells of one type only. *Opp.* heterocellular.

homocercal (hõm'ösër'käl) *a.* [Gk. *homos*, same; *kerkos*, tail.] Having a tail with equal or nearly equal lobes, and axis ending near middle of base.

homocerebrin (hõm'ösër'ëbrin) *n.* [Gk. *homos*, same; *L. cerebrum*, brain.] A substance identical with cerebrin.

homochlamydeous (hõm'oklämid'-ëüs) *a.* [Gk. *homos*, same; *chlamys*, cloak.] Having outer and inner perianth whorls alike.

homochromous (hõm'ökrö'müs) *a.* [Gk. *homos*, same; *chroma*, colour.] Of one colour; *appl.* caputular florets. *Opp.* heterochromous.

homochronous (hõmök'rönüs) *a.* [Gk. *homos*, same; *chronos*, time.] Occurring at the same age or period, in successive generations.

homodermic (hõm'ödër'mik) *a.* [Gk. *homos*, same; *derma*, skin.] Sprung from same embryonic layer.

homodont (hõ'mödönt) *a.* [Gk. *homos*, same; *odous*, tooth.] Having the teeth all alike, not differentiated; isodont. *Opp.* heterodont.

homodromous (hõmöd'römüs) *a.* [Gk. *homos*, same; *dramein*, to run.] Having genetic spiral alike in direction in stem and branches; moving or acting in the same direction.

homodynamic (hõm'ödīnäm'ik) *a.* [Gk. *homos*, same; *dynamis*, power.] Developing without resting stages; *appl.* insects not requiring a diapause for further development; *pert.* homodynamy; acting upon the production of the same phenotypic effects at the same time; *appl.* genes.

homodynamy (hõm'ödī'nāmi) *n.* [Gk. *homos*, same; *dynamis*, power.] Metamerism homology.

homoeandrous (hõmëän'drüs) *a.* [Gk. *homoios*, alike; *aner*, male.] Having uniform stamens.

homoeocious (hõmë'siüs) *a.* [Gk. *homos*, same; *oikos*, abode.] Occupying the same host or shelter during the life cycle.

homoeo-,—also homeo, homoio.

homoeologous (hõmëöl'ögüs) *a.* [Gk. *homoios*, like; *logos*, relation.] *Appl.* chromosomes having in part the same sequence of genes; partly homologous.

homoeologue,—a homoeologous chromosome.

homoeomerous (hõm'ëöm'erüs) *a.* [Gk. *homoios*, like; *meros*, part.] With or consisting of similar parts.

homoeomorphic (hõm'ëömör'fik) *a.* [Gk. *homoios*, like; *morphe*, form.] Resembling in shape or structure; exhibiting convergence.

homoeosis (hōmē'ōsis) *n.* [Gk. *homoiosis*, likeness.] Assumption by one part of likeness to another part, as modification of antenna into foot, or of petal into stamen; metamorphy.

homoeotype (hōm'ēōtip) *n.* [Gk. *homoios*, alike; *typos*, pattern.] A specimen authoritatively stated to be identical with the holotype, lectotype, paratypes, or syntypes of its species.

homoeozoic (hō'mēōzō'ik) *a.* [Gk. *homoios*, alike; *zoe* life.] Characterised by similar forms of life; *appl.* areas or zones.

homogametic (hōm'ōgāmēt'ik) *a.* [Gk. *homos*, same; *gametes*, spouse.] Having homologametes or gametes of one type; *appl.* sex possessing two X-chromosomes; *cf.* heterogametic, digametic.

homogamous (hōmōg'āmūs) *a.* [Gk. *homos*, same; *gamos*, marriage.] Characterised by homogamy.

homogamy (hōmōg'āmi) *a.* [Gk. *homos*, same; *gamos*, marriage.] Inbreeding due to some type of isolation; condition of having flowers all alike, having stamens and pistils mature at same time.

homogangliate (hōm'ōgāng'liāt) *a.* [Gk. *homos*, same; *ganglion*, knot.] Having ganglia of nerve loops symmetrically arranged.

homogen (hō'mōjēn) *n.* [Gk. *homos*, same; *genos*, race.] One of a group having a common origin; one of a series of identically derived parts.

homogenesis (hōm'ōjēn'ēsīs) *n.* [Gk. *homos*, same; *genesis*, descent.] The type of reproduction in which like begets like.

homogenetic (hōm'ōjēnēt'ik) *a.* [Gk. *homos*, same; *genesis*, descent.] Having the same origin; *pert.* homogenesis; *appl.* pairing of homologous chromosomes.

homogenous (hōmōj'ēnūs) *a.* [Gk. *homos*, same; *genos*, race.] More or less alike owing to descent from common stock; *appl.* graft from another animal of same species.

homogeny (hōmōj'ēni) *n.* [Gk. *homos*, same; *genos*, race.] Correspondence between parts due to common descent; the same genotypical structure; homogeneity.

homoglandular (hōm'ōglān'dulār) *a.* [Gk. *homos*, same; *l.* *glandula*, small acorn.] Of or *pert.* the same gland.

homogony (hōmōg'ōni) *n.* [Gk. *homos*, same; *gonos*, offspring.] Condition of having one type of flower with equally long stamens and pistil.

homolo-,—*also* homeo-, homoeo-

homoiochlamydeous (hōmoi'ōklāmīd'ēūs) *a.* [Gk. *homoios*, like; *chlamys*, cloak.] With sepals and petals similar; homochlamydeous.

homoiomerous (hōmoiōm'ērūs) *a.* [Gk. *homoios*, like; *meros*, part.] Having algae distributed equally through fungoid mycelium in a lichen.

homoioplastic (hōmoi'ōplās'tik) *a.* [Gk. *homoios*, like; *plastos*, formed.] *Appl.* transplantation between individuals of the same species; homeoplastic.

homoiosmotic (hōmoi'ōsmōt'ik) *a.* [Gk. *homoios*, like; *osmos*, impulse.] *Appl.* organisms with constant internal osmotic pressure; euryhaline, *q.v.*

homoiothermal (hōmoi'ōthēr'māl) *a.* [Gk. *homoios*, like; *thermos*, hot.] Having a more or less constant body temperature; warm-blooded; homeothermal, homoiothermic, homothermal, homothermic, homothermous. *Opp.* poikilothermal.

homoiotransplantation,—transplantation of tissue or organ from one organism to another, possibly unrelated; *cf.* autotransplantation.

homolecithal (hōm'ōlē's'ithāl) *a.* [Gk. *homos*, same; *lekithos*, yolk.] Having little deutoplasm, which is equally distributed.

homolog,—homologue.

homologous (hōmōl'ōgūs) *a.* [Gk. *homologos*, agreeing.] Resembling in structure and origin; *appl.* alternating generations; *appl.* various substances, *e.g.* agglutinins affecting

organisms of same species only ; *appl.* chromosomes with the same sequence of genes ; *appl.* genes determining the same character, *e.g.* eye colour. *Cf.* heterologous, anti-thetic.

homologue (höm'ölög) *n.* [Gk. *homologos*, agreeing.] One of a series of structures similar in structure and origin ; a homologous agent.

homology (hömöl'öji) *a.* [Gk. *homologia*, agreement.] Similarity in structure and development of organ or parts.

homomallous (höm'ömäl'üs) *a.* [Gk. *homos*, same ; *mallos*, lock of wool.] Curving uniformly to one side ; *appl.* leaves.

homomorphic (höm'ömôr'fik) *a.* [Gk. *homos*, same ; *morphe*, form.] Of similar size or structure ; *pert.*, or exhibiting, homomorphism ; *appl.* chromosome pairs ; *cf.* heteromorphic.

homomorphism (höm'ömôr'fizm) *n.* [Gk. *homos*, same ; *morphe*, shape.] The condition of having perfect flowers of only one type ; hemimetabolism ; similarity of larva and adult.

homomorphosis (höm'ömôr'fösís) *n.* [Gk. *homos*, same ; *morphosis*, shaping.] Condition of having a newly regenerated part like the part removed.

homonomic (höm'önöm'ik) *a.* [Gk. *homos*, same ; *nomos*, law.] Having the same behaviour ; *appl.* affinity, as of tissues combining, *e.g.* vascular anastomoses, or complementary affinity, as in adrenal medulla and cortex ; homonomous, *q.v.*

homonomous (hömön'ömüs) *a.* [Gk. *homos*, same ; *nomós*, department.] *Appl.* segmentation into similar segments. [Gk. *nomos*, law.] Following same stages or process, as of development or growth.

homonymy (hömön'ömi) *n.* [Gk. *homos*, same ; *nomos*, law.] The homology existing between parts arranged on transverse axes ; homodynamy.

homonym (höm'önim) *n.* [Gk. *homos*, same ; *onyma*, name.] A name preoccupied, and therefore unsuitable according to law of priority.

homopetalous (höm'öpët'älüs) *a.* [Gk. *homos*, same ; *petalon*, petal.] Having all the petals alike.

homophyadic (höm'öfiäd'ik) *a.* [Gk. *homos*, same ; *phyas*, shoot.] Producing only one kind of shoot.

homophylic (höm'öfil'ik) *a.* [Gk. *homos*, same ; *phyle*, race.] Resembling one another owing to a common ancestry.

homophyllous (höm'öfil'üs) *a.* [Gk. *homos*, same ; *phyllon*, leaf.] Bearing leaves all of one kind.

homophytic (höm'öfit'ik) *a.* [Gk. *homos*, same ; *phyton*, plant.] With two kinds of spores, or one bisexual type, borne by a single sporophyte ; *cf.* heterophytic.

homoplasma (höm'öpláz'mä) *n.* [Gk. *homos*, same ; *plasma*, mould.] Plasma from another animal of same species used as a medium for tissue culture ; *cf.* autoplasma, heteroplasma.

homoplastic (höm'öpláz'mík) *a.* [Gk. *homos*, same ; *plasma*, mould.] Having the same general form ; *pert.* homoplasma.

homoplast (höm'öpläst) *n.* [Gk. *homos*, same ; *plastos*, moulded.] An organ or organism formed of similar plastids ; coenobium ; catallact.

homoplastic (höm'öpläs'tik) *a.* [Gk. *homos*, same ; *plastos*, moulded.] *Pert.* homoplasty ; *appl.* graft made into individual of same species ; *cf.* autoplastic.

homoplastid,—homoplast.

homoplasty (höm'öpläs'ti) *n.* [Gk. *homos*, same ; *plastos*, moulded.] Convergence ; resemblance in form of structure between different organs or organisms due to evolution along similar lines ; also homoplasmy ; isotely.

homopolar (höm'öpö'lär) *a.* [Gk. *homos*, same ; *polos*, pole.] Having both ends of an axis alike.

homopterous (hömöp'têrus) *a.* [Gk. *homos*, same; *pteron*, wing.] Having the wings alike.

homorhizal (höm'ör'ízäl) *a.* [Gk. *homos*, same; *rhiza*, root.] Not having an antiapical root, as Pteridophyta. *Opp.* allorhizal.

homosomal (höm'ösö'mäl) *a.* [Gk. *homos*, same; *soma*, body.] Occurring in, or *pert.*, the same body; *appl.* rearrangements restricted to a single chromosome.

homosporangic (höm'öspörän'jik) *a.* [Gk. *homos*, same; *sporos*, seed; *angeion*, vessel.] Bearing spores of one kind or of two kinds in one sporangium.

homosporous (hömöspō'rūs) *a.* [Gk. *homos*, same; *sporos*, seed.] Producing only one kind of spore; homosporic; isosporous.

homostyled (höm'östild) *a.* [Gk. *homos*, same; *stylos*, pillar.] With uniform styles; homogenous.

homosynapsis (höm'ösinäp'sis) *n.* [Gk. *homos*, same; *synapsis*, union.] Pairing of two homologous chromosomes; *cf.* heterosynapsis.

homotaxial (höm'ötäk'siäl) *a.* [Gk. *homos*, same; *taxis*, arrangement.] Containing the same assemblage of species, *appl.* fossiliferous deposits.

homotaxis (höm'ötäk'sis) *n.* [Gk. *homos*, same; *taxis*, arrangement.] Similar assemblage or succession of species or types in different regions or strata, not necessarily contemporaneous; homotaxy.

homothallic (höm'öthäl'ik) *a.* [Gk. *homos*, same; *thallos*, young shoot.] Forming zygospores from two branches of the same mycelium; *appl.* moulds. *Opp.* heterothallic.

homothermous, — homoiothermal.

homotropous (hömöt'öpūs) *a.* [Gk. *homos*, same; *trope*, turn.] Erect; having micropyle and chalaza at opposite ends; *appl.* ovules.

homotypic (hömötíp'ik) *a.* [Gk. *homos*, same; *typos*, pattern.] Homeotypic, *q.v.*; *pert.* or exhibiting homotypy.

homotypy (höm'ötípi) *n.* [Gk. *homos*, same; *typos*, pattern.]

Equality of structures along main axis of body; serial homology; reversed symmetry; enantiomorphic condition, *q.v.*

homoxylous (höm'özi'lūs) *a.* [Gk. *homos*, same; *xylon*, wood.] *Appl.* wood without vessels and consisting of tracheids.

homozygosis (höm'özigō'sis) *n.* [Gk. *homos*, same; *zygon*, yoke.] Condition of having a given genetical factor in the duplex condition, and producing gametes of only one kind as regards that factor.

homozygote (höm'özi'gōt) *n.* [Gk. *homos*, same; *zygon*, yoke.] An organism in which characters are stable, resulting from union of gametes bearing similar genes.

homozygous (höm'özi'gūs) *a.* [Gk. *homos*, same; *zygon*, yoke.] Having identical genes for a given character; exhibiting or *pert.* homozygosis; *pert.* homozygote.

homunculus (hömün'külūs) *n.* [L. *homunculus*, little man.] The small miniature of human foetus supposed to be in spermatozoon, according to Animalculists; homonculus; a human dwarf normally proportioned.

honey-dew, — a sugary exudation found on leaves of many plants; a viscous fluid secreted by mycelium of ergot; a sweet secretion produced by certain insects, *e.g.*, by aphids.

hooded (hood'éd) *a.* [A.S. *hōd*.] Bearing a hood-like petal; cucullate; rolled up like a cone of paper, as certain leaves; having head conspicuously and differently coloured from rest of body; having crests on head; having wingshaped expansions on neck, as in cobra.

hook-glands, — paired longitudinal glands uniting anteriorly to form head gland in Pentastomida.

hordeaceous (hōr'dēā'shūs) *a.* [L. *hordeum*, barley.] *Pert.* or resembling barley.

horioidimorphism (hō'riōdimôr'fizm) *n.* [Gk. *horios*, in season; *dis*, twice; *morphe*, shape.] Seasonal dimorphism.

horizon (hōr'i'zōn) *n.* [Gk. *horizon*, bounding.] Soil layer of a more or less well-defined character; a layer of deposit characterised by definite fossil species and formed at a definite time.

horizontal (hōr'izōn'tāl) *a.* [Gk. *horizon*, bounding.] Growing in a plane at right angles to primary axis.

horme (hōr'mē) *n.* [Gk. *horme*, impetus.] Purposive behaviour; conation; urge or drive in living cells or organisms; élan vital.

hormesis (hōrmē'sis) *n.* [Gk. *hormaein*, to excite.] Stimulation by a non-poisonous dose of a toxic substance or agent.

hormocyst (hōr'mōsist) *n.* [Gk. *hormos*, chain; *kystis*, bladder.] A modified thick-walled hormogonium, in some blue-green alga.

hormogonium (hōr'mōgō'nīum) *n.* [Gk. *hormos*, chain; *gone*, generation.] That portion of an algal filament between two heterocysts, which, breaking away, acts as a reproductive body; hormogone.

hormones (hōrmōnz) *n. plu.* [Gk. *hormaein*, to excite.] Substances normally produced in cells and necessary for the proper functioning of other distant cells to which they are conveyed and of the body as a whole; internal secretions of ductless glands which pass into blood vessels by osmosis; exciting agents, *opp.* chalones; internal secretions in plants, as auxins, *q.v.*

hormonic (hōrmōn'ik) *a.* [Gk. *hormaein*, to excite.] *Pert.* hormones; *appl.* excitatory internal secretions, *opp.* chalonic.

hormonopoiesis (hōrmō'nōpoiē'sis) *n.* [Gk. *hormaein*, to excite; *poiesis*, making.] The production of hormones.

hormoproteins (hōr'mōprō'tēinz) *n. plu.* [Gk. *hormaein*, to excite; *protein*, first.] Proteins or protein derivatives secreted by endocrines.

hormospore (hōr'mōspōr) *n.* [Gk. *hormos*, chain; *sporos*, seed.] A

spore dividing into microgonidi as of some lichens.

horn (hōrn) *n.* [A.S. *horn*.] The process on head of many animals; any projection resembling a horn; anterior part of each uterus when posterior parts are united to form median corpus uteri; a tuft of feathers as in owl; a spine in fishes; a tentacle in snails; an awn; any pointed projection or process in plants; cornu.

horn core,—the os cornu, fusing with frontal bone, over which fits hollow horn of ruminants.

horodimorphism, — horiodimorphism, *q.v.*

horotelic (hōrōtēl'ik) *a.* [Gk. *hora*, right time; *telos*, fulfilment.] Evolving at the standard rate; *cf.* bradytelic, tachytelic.

Hortega cells [*P. de R. Hortega*, Spanish histologist]. Phagocytic neuroglial cells or microglia.

host (hōst) *n.* [L. *hospes*, host.] Any organism in which another organism spends part or the whole of its existence, and from which it derives nourishment or gets protection; an organism which receives grafted or transplanted tissue.

hough, *see* hocks.

house (hows) *n.* [A.S. *hūs*.] The external gelatinous-like covering secreted by certain tunicates.

Houston's valves [*J. Houston*, Irish surgeon]. Semilunar transverse folds of mucous membrane in the rectum; plicae transversales recti.

humeral (hū'mērāl) *a.* [L. *humerus*, shoulder.] *Pert.* shoulder region; *pert.* the anterior basal angle of insect wing, *appl.* a cross vein; one of horny plates on plastron of chelonians.

humerus (hū'mērūs) *n.* [L. *humerus*, shoulder.] The bone of the upper arm.

humicolous (hūmik'ölūs) *a.* [L. *humus*, soil; *colere*, to dwell.] Soil-inhabiting; growing in or on soil.

humistratous (hū'mistrā'tūs) *a.* [L. *humus*, soil; *sternere*, to spread.] Spreading over surface of ground.

humoral (hū'mōrāl) *a.* [L. *humor*, moisture.] *Appl.* theory of immunity ascribing to body fluids the power to resist infection.

humour (hū'mōr) *n.* [L. *humor*, moisture.] Any fluid or juice; the fluid of the eye.

humus (hū'mūs) *n.* [L. *humus*, earth.] A dark material formed by decomposition of vegetable or animal matter and constituting organic part of soils.

husk (hūsk) *n.* [M.E. *huske*.] The outer coating of various seeds.

Huxley's layer [*T. H. Huxley*, English zoologist]. The middle layer of polyhedral cells in inner root-sheath of hair.

hyaline (hī'ālīn) *a.* [Gk. *hyalos*, glass.] Clear; transparent; free from inclusions.

hyalodermis (hī'ālōdēr'mīs) *n.* [Gk. *hyalos*, glass; *derma*, skin.] Tissue of large, empty and absorptive cells in Sphagnum.

hyalogen (hī'ālōjēn) *n.* [Gk. *hyalos*, glass; *-genes*, producing.] Any of substances found in animal tissues which are insoluble and related to mucoids.

hyaloid (hī'āloid) *a.* [Gk. *hyalos*, glass; *eidōs*, form.] Glassy; transparent.

hyaloid artery,—from central artery of retina through hyaloid canal to back of lens, in foetal eye.

hyaloid canal,—through vitreous body of eye, from optic nerve to back of lens.

hyaloid fossa,—anterior concavity of vitreous body, receptacle of crystalline lens.

hyaloid membrane,—delicate membrane enveloping vitreous body of eye.

hyalomere (hī'ālōmēr) *n.* [Gk. *hyalos*, glass; *meros*, part.] The clear homogeneous part of a blood platelet, *opp.* chromomere.

hyalomucoid (hī'ālōmū'koid) *n.* [Gk. *hyalos*, glass; L. *mucus*, mucus; Gk. *eidōs*, like.] One of the non-phosphorised gluco- proteids in vitreous humour.

hyaloplasm (hī'ālōplāzm) *n.* [Gk. *hyalos*, glass; *plasma*, mould.] Ground substance of cell as distinguished from microsomes, or from reticulum or spongioplasm; ectoplasm or peripheral zone in plant cells; also hyaloplasma.

hyalopterous (hī'ālōp'tērūs) *a.* [Gk. *hyalos*, glass; *pteron*, wing.] Having transparent wings.

hyalosome (hī'ālōsōm) *n.* [Gk. *hyalos*, glass; *soma*, body.] A nucleolar-like body in a cell-nucleus, only slightly stainable by nuclear or plasma stains.

hyalosporous (hī'ālōspō'rūs, hī'ālōs-pōrūs) *a.* [Gk. *hyalos*, glass; *sporos*, seed.] Having colourless spores or conidia.

hybrid (hī'brid) *n.* [L. *hibrida*, cross.] Any cross-bred animal or plant; heterozygote. *a.* Cross-bred; heterozygous.

hybrid incapacitation,—hybrid sterility and inviability, inclusively.

hybrid swarms,—populations consisting of descendants of species hybrids, as at borders between geographical areas populated by these species.

hybridisation (hī'bridizā'shūn) *n.* [L. *hibrida*, cross.] Act or process of hybridising; state of being hybridised; cross-fertilisation.

hybridise (hī'bridiz) *v.* [L. *hibrida*, cross.] To interbreed, to cross, to produce hybrids.

hybridism (hī'bridizm) *n.* [L. *hibrida*, cross.] The state or quality of being a hybrid.

hydathode (hī'dāthōd) *n.* [Gk. *hydatos*, of water; *hodos*, way.] An epidermal structure specialised for secretion, or for exudation, of water; water stoma.

hydatid (hī'dātid) *n.* [Gk. *hydatis*, watery vesicle.] Any vesicle or sac filled with clear watery fluid; sac containing encysted stages of larval tapeworms; vestige of Müllerian duct constituting appendix of testis, hydatid of Morgagni; stalked appendix of epididymis.

hydatiform (hī'dātifōrm) *a.* [Gk. *hydatis*, watery vesicle; *L. forma*, shape.] Resembling a hydatid.

hydatigenous (hī'dätij'ēnūs) *a.* [Gk. *hydatis*, watery vesicle; *-genes*, producing.] Producing or forming hydatids.

hydranth (hī'drānth) *n.* [Gk. *hydor*, water; *anthos*, flower.] A nutritive zooid in a hydroid colony.

hydrarch (hī'drārk) *n.* [Gk. *hydor*, water; *arche*, beginning.] *Appl.* seres progressing from hydric towards mesic conditions.

hydric (hī'drīk) *a.* [Gk. *hydor*, water.] Characterised by an abundant supply of moisture, *appl.* plants, environment.

hydroanemophilous (hī'drōänēmō-fīlūs) *a.* [Gk. *hydor*, water; *anemos*, wind; *philos*, loving.] *Pert.* or having spores which are discharged after moistening of spore-producing structures, and become air-borne.

hydrocaulis (hī'drōkōl'īs) *n.* [Gk. *hydor*, water; *L. caulis*, stalk.] The branching vertical portion of coenosarc in a hydroid colony.

hydrobiology (hī'drōbīōl'ōjī) *n.* [Gk. *hydor*, water; *bios*, life; *logos*, discourse.] The study of the life of aquatic plants and animals.

hydrochoric (hī'drōkō'rik) *a.* [Gk. *hydor*, water; *chorēin*, to spread.] Dispersed by water; dependent on water for dissemination.

hydrocircuit (hī'drōsēr'kūs) *n.* [Gk. *hydor*, water; *kirkos*, circle.] The hydrocoelic ring surrounding mouth in echinoderms.

hydrocladia (hī'drō'klād'īā) *n. plu.* [Gk. *hydor*, water; *kladion*, twig.] The secondary branches of a hydrocaulis.

hydrocoel (hī'drōsēl) *n.* [Gk. *hydor*, water; *koilos*, hollow.] The water-vascular system in echinoderms.

hydrocryptophyte, — hydrophyte, *q.v.*

hydrocyst (hī'drōsist) *n.* [Gk. *hydor*, water; *kystis*, bladder.] A dactylozooid.

hydroecium (hīdrēs'īūm) *n.* [Gk. *hydor*, water; *oikos*, house.] A closed tube at upper end of a siphonophore; an infundibulum.

hydroid (hī'droid) *n., a.* [Gk. *hydor*, water; *eidōs*, form.] Elongated empty cell in central cylinder of mosses; a tracheid; the polyp of Hydrozoa.

hydrolysis (hīdrōl'īsis) *n.* [Gk. *hydor*, water; *lyein*, to dissolve.] The reaction between a chemical compound and the hydrogen and hydroxyl ions of water.

hydrome (hī'drōm) *n.* [Gk. *hydor*, water; *bestos*, full.] Any tissue that conducts water; also hydrom.

hydromegatherm (hī'drōmēg'āthērm) *n.* [Gk. *hydor*, water; *megas*, great; *therme*, heat.] A plant which must have much moisture and heat to develop fully.

hydromorph (hī'drōmōrph) *n.* [Gk. *hydor*, water; *morphe*, form.] A plant having the form and structure of a hydrophyte.

hydromorphic (hīdrōmōr'fik) *a.* [Gk. *hydor*, water; *morphe*, form.] Structurally adapted to an aquatic environment, as organs of water plants; *appl.* or *pert.* soils permanently containing a surplus of water.

hydronasty (hī'drōnās'tī) *n.* [Gk. *hydor*, water; *nastos*, close-pressed.] Plant movement induced by changes in atmospheric humidity.

hydrophilous (hī'drōfīlūs) *a.* [Gk. *hydor*, water; *philein*, to love.] Pollinated through agency of water.

hydrophobe (hī'drōfōb) *a.* [Gk. *hydor*, water; *phobos*, fear.] Avoiding or repelling water; *appl.* hairs of certain aquatic insects.

hydrophoric (hī'drōfōr'ik) *a.* [Gk. *hydrophoros*, carrying water.] *Appl.* canal, the madreporic or stone canal, *q.v.*

hydrophyllium (hī'drōfīl'īūm) *n.* [Gk. *hydor*, water; *phyllon*, leaf.] One of leaf-like transparent bodies arising above and partly covering the sporosacs in a siphonophore.

hydrophyte (hī'drōfit) *n.* [Gk. *hydor*, water; *phyton*, plant.] An aquatic plant; *cf.* *hygrophyte*.

hydrophyton (hīdrōfīt'ōn) *n.* [Gk. *hydor*, water; *phyton*, plant.] A complete hydroid colony, root-like organ, stem and branches.

hydropulanula (hī'drōplān'ulā) *n.* [Gk. *hydor*, water; L. *planus*, flat.] Stages between planula and actinula in larval history of coelenterates.

hydropolyp (hī'drōpōl'ip) *n.* [Gk. *hydor*, water; F. *polype*, polyp.] A polyp of a hydroid colony; a hydrula.

hydroponics (hī'drōpōn'iks) *n.* [Gk. *hydor*, water; *ponos*, exertion.] The science and art of crop production in liquid culture media; *cf.* water culture.

hydropore (hī'drōpōr) *n.* [Gk. *hydor*, water; *poros*, opening.] The opening into right hydrocoel in echinoderm larvae.

hydropote (hī'drōpōt) *n.* [Gk. *hydro-potes*, water-drinker.] A cell or cell-group, in some submerged leaves, easily permeable by water and salts.

hydropyle (hīdrōp'ilē) *n.* [Gk. *hydor*, water; *pyle*, gate.] Specialised area in cuticular membrane of embryo, for passage of water, as in grasshoppers.

hydrorhabd (hī'drōrābd) *n.* [Gk. *hydor*, water; *rhabdos*, rod.] A rhabdosome, in graptolites.

hydrorhiza (hī'drōrī'zā) *n.* [Gk. *hydor*, water; *rhiza*, root.] The creeping root-like portion of coenosarc of a hydroid colony.

hydrosere (hī'drōsēr) *n.* [Gk. *hydor*, water; L. *serere*, to put in a row.] A plant succession originating in a wet environment.

hydrosome (hī'drōsōm) *n.* [Gk. *hydor*, water; *soma*, body.] The conspicuously hydra-like stage in a coelenterate life-history; hydrosoma.

hydrospire (hī'drōspir) *n.* [Gk. *hydor*, water; L. *spira*, coil.] The folds on the stereom of blastoids, being respiratory structures.

hydrostatic (hī'drōstāt'ik) *a.* [Gk. *hydor*, water; *statikos*, causing to stand.] *Appl.* organs of flotation, as air sacs in aquatic larvae of insects.

hydrostome (hī'drōstōm) *n.* [Gk. *hydor*, water; *stoma*, mouth.] The mouth of a hydroid polyp.

hydrotaxis (hī'drōtāk'sis) *n.* [Gk. *hydor*, water; *taxis*, arrangement.] Response of organisms to stimulus of moisture.

hydrotheca (hī'drōthē'kā) *n.* [Gk. *hydor*, water; *theke*, cup.] Cup-like structure into which the polyp may withdraw, in many coelenterates.

hydrotropic (hī'drōtrōp'ik) *a.* [Gk. *hydor*, water; *trope*, turn.] *Appl.* curvature of a plant organ towards a greater degree of moisture.

hydrotropism (hī'drōt'rōpizm) *n.* [Gk. *hydor*, water; *trepein*, to turn.] Response to stimulus of water.

hydroxycobalamin,—vitamin B_{12b}.

hydrula (hī'drōulā) *n.* [Gk. *hydor*, water.] Hypothetical simple polyp.

hyetal (hī'ētāl) *a.* [Gk. *hyetos*, rain.] *Pert.* rain; *pert.* precipitation.

hygiene (hī'jēn) *n.* [Gk. *hygieinos*, healthful.] That part of biology dealing with health preservation.

hygric (hī'grik) *a.* [Gk. *hygros*, wet.] Humid; tolerating, or adapted to, humid conditions. *Opp.* xeric.

hygrochasy (hī'grōkā'si) *n.* [Gk. *hygros*, wet; *chasis*, separation.] Dehiscence of seed vessels when induced by moisture; *cf.* xerochasy.

hygrokinesis (hī'grōkinē'sis) *n.* [Gk. *hygros*, wet; *kinesis*, movement.] Movement in response to change in humidity.

hygrophilous (hīgrōf'ilūs) *a.* [Gk. *hygros*, wet; *philein*, to love.] Inhabiting moist or marshy places.

hygrophyte (hī'grōfit) *n.* [Gk. *hygros*, wet; *phyton*, plant.] A plant which thrives in plentiful moisture; *cf.* *hydrophyte*.

hygroplasm (hī'grōplāzm) *n.* [Gk. *hygros*, wet; *plasma*, mould.] The more liquid part of protoplasm, *opp.* stereoplasm.

hygroscopic (hī'grōskōp'ik) *a.* [Gk. *hygros*, wet; *skopein*, to regard.] Sensitive to, or retaining, moisture.

hylion (hī'liōn) *n.* [Gk. *hyle*, wood; *on*, being.] Forest climax; hylum.

hylogamy (hīlōg'āmī) *n.* [Gk. *hyle*, material; *gamos*, marriage.] The fusion of gametes, *opp.* somatogamy; syngamy.

hylophagous (hīlōf'ägūs) *a.* [Gk. *hyle*, wood; *phagein*, to eat.] Eating wood; *appl.* certain insects.

hylophyte (hī'lōfit) *n.* [Gk. *hyle*, wood; *phyton*, plant.] A plant growing in woods.

hylotomous (hī'lōt'ōmūs) *a.* [Gk. *hyle*, wood; *temnein*, to cut.] Wood-cutting; *appl.* certain insects.

hymen (hī'mēn) *n.* [Gk. *hymen*, membrane.] Thin fold of mucous membrane at orifice of vagina.

hymenial (hīmē'nīāl) *a.* [Gk. *hymen*, skin.] *Pert.* hymenium.

hymeniferous (hī'mēnīf'ērūs) *a.* [Gk. *hymen*, skin; *L. ferre*, to carry.] Having a hymenium.

hymeniform (hī'mēnīfōrm) *a.* [Gk. *hymen*, skin; *L. forma*, form.] Formed like a palisade of club-shaped cells; *appl.* cuticle of fleshy fungi.

hymenium (hīmē'nīūm) *n.* [Gk. *hymen*, skin.] The outermost layer of mushroom lamellae, or of other fungi, consisting of spore-producing cells interspersed with barren cells or paraphyses.

hymenoid (hī'mēnoid) *a.* [Gk. *hymen*, membrane; *eidos*, form.] Membranoid; membranous; resembling a hymenium; hymeniform.

hymenophore (hī'mēnōfōr) *n.* [Gk. *hymen*, skin; *pherein*, to carry.] The hymenial portion of sporophore of a fungus.

hymenopodium (hī'mēnōpō'diūm) *n.* [Gk. *hymen*, membrane; *pous*, foot.] The tissue between trama and subhymenium, as in cup fungi and agarics.

hymenopterous (hī'mēnōp'tērūs) *a.* [Gk. *hymen*, skin; *pteron*, wing.]

Having membranous wings; *appl.* certain insects.

hyobranchial (hī'ōbrāng'kiāl) *a.* [Gk. *Y*; *brangchia*, gills.] *Pert.* hyoid and branchial arches.

hyoepiglottic (hī'ōēpiglōt'ik) *a.* [Gk. *Y*; *epi*, upon; *glotta*, tongue.] Connecting hyoid and epiglottis.

hyoglossal (hī'ōglōs'āl) *a.* [Gk. *Y*; *glossa*, tongue.] *Pert.* tongue and hyoid; *appl.* membrane and muscle.

hyoid (hī'oid) *a.* [Gk. *hyooides*, Y-shaped.] *Pert.* or designating a bone or series of bones lying at base of tongue and developed from hyoid arch of embryo; *appl.* a sclerite enclosing pharynx in some insects; hyoidean. *n.* The hyoid bone.

hyoidean (hioid'ēän) *a.* [Gk. *hyooides*, Y-shaped.] *Pert.* or associated with the hyoid arch or bone; *appl.* a branch of first efferent branchial vessel, or of lingual artery; *appl.* nerve, the posterior post-trematic nerve.

hyoideus (hioid'ēüs) *n.* [Gk. *hyooides*, Y-shaped.] A nerve which supplies mucosa of mouth and muscles of hyoid region.

hyomandibular (hī'ōmändib'ülär) *a.* [Gk. *Y*; *L. mandibulum*, jaw.] *Pert.* hyoid and mandible; *pert.* dorsal segment of hyoid arch in fishes.

hyomental (hī'ōmēn'täl) *a.* [Gk. *Y*; *L. mentum*, chin.] *Pert.* hyoid and chin.

hyoplastron (hī'ōpläs'trōn) *n.* [Gk. *Y*; *F. plastron*, breast-plate.] The second lateral plate in plastron of Chelonia.

hyostapes (hī'östä'pēz) *n.* [Gk. *Y*; *L.L. stapes*, stirrup.] Lower portion of columellar primordium which gives rise to part of columella in some reptiles.

hyosternum (hī'östēr'nūm) *n.* [Gk. *Y*; *sternon*, breast.] Hyoplastron.

hyostylic (hī'östil'ik) *a.* [Gk. *Y*; *stylos*, pillar.] Having jaw articulated to skull by hyomandibular or corresponding part; exhibiting hyostyly; *cf.* autostylic.

hyosymplecticum (hī'ōsimplék'tī-kūm) *n.* [Gk. *Y*; *symplektos*, plaited together.] The cartilaginous primordium from which hyomandibular and symplecticum are derived.

hyothyroid (hī'ōthī'roid) *a.* [Gk. *Y*; *thyreos*, shield; *eidos*, like.] *Pert.* hyoid bone and thyroid cartilage of larynx; *appl.* ligaments, membrane.

hyppallemorph (hīp'ālēl'ōmōrf) *n.* [Gk. *hypo*, under; *allelon*, of one another; *morphe*, form.] Allelomorphs which under certain conditions are themselves compound.

hypandrium (hīpān'driūm) *n.* [Gk. *hypo*, under; *aner*, male.] Subgenital plate or ninth abdominal sternite of certain insects.

hypanthium (hīpān'thiūm) *n.* [Gk. *hypo*, under; *anthos*, flower.] Any enlargement of the torus.

hypanthodium (hīp'ānthō'diūm) *n.* [Gk. *hypo*, under; *anthodes*, like flowers.] An inflorescence with concave capitulum on whose walls the flowers are arranged.

hypantrum (hīpān'trūm) *n.* [Gk. *hypo*, under; *antron*, cave.] Notch on vertebrae of certain reptiles for articulation with hyposphene.

hyapophysis (hīp'āpōf'isis) *n.* [Gk. *hypo*, under; *apo*, upon; *phyein*, to grow.] A ventral process on a vertebral centrum.

hyparterial (hīp'ārtē'rīāl) *a.* [Gk. *hypo*, under; *L. arteria*, artery.] Situated below an artery; *appl.* branches of bronchi below pulmonary artery.

hypaxial (hīpāk'sīāl) *a.* [Gk. *hypo*, under; *L. axis*, axis.] Ventral; below vertebral column; *appl.* muscles.

hyperapophysis (hī'pērāpōf'isis) *n.* [Gk. *hyper*, above; *apo*, from; *phyein*, to grow.] A postero-lateral process of dorsal side of vertebra.

hyperchromasy (hī'pērkrō'māsi) *n.* [Gk. *hyper*, above; *chroma*, colour.] A relatively superabundant supply of chromatin to cytoplasm in a cell.

hyperchromatosis (hī'pērkrō'mātō-sis) *n.* [Gk. *hyper*, above; *chroma*,

colour.] Excess of nuclear substance in a cell previous to division.

hypercoracoid (hī'pērkor'ākoid) *a.* [Gk. *hyper*, above; *korax*, crow; *eidos*, form.] *Pert.* or designating upper bone at base of pectoral fin in fishes.

hypercyesis (hī'pērsiē'sis) *n.* [Gk. *hyper*, above; *kyesis*, conception.] Superfoetation; additional fertilisation in a mammal already pregnant.

hyperfeminisation,—condition of a feminised male with female characteristics exaggerated, as in small size and weight.

hypergamesis (hī'pērgāmē'sis) *n.* [Gk. *hyper*, above; *gamos*, marriage.] Process of absorption by female of excess spermatozoa.

hypermasculinisation,—condition of a masculinised female with male characteristics exaggerated, as in large proportions, appearance of male secondary sexual characters.

hypermetamorphosis (hī'pērmēt'ā-mōr'fōsis) *n.* [Gk. *hyper*, above; *meta*, after; *morphosis*, shaping.] A protracted and thoroughgoing metamorphosis; metamorphosis involving two or more distinct types of larval instar, in certain insects.

hypermorphosis (hī'pērmōr'fōsis) *n.* [Gk. *hyper*, above; *morphosis*, shaping.] The development of additional characters, in comparison with the adult ancestral stage.

hyperparasite (hī'pērpār'āsīt) *n.* [Gk. *hyper*, above; *para*, beside; *sitos*, food.] A parasite which is parasitic on or in another parasite.

hyperphalangy (hī'pērfāl'ānji) *n.* [Gk. *hyper*, above; *phalangx*, line of battle.] Condition of having digits with more than normal number of phalanges.

hyperpharyngeal (hī'pērfārīn'jēāl) *a.* [Gk. *hyper*, above; *pharyngx*, gullet.] Dorsally to the pharynx; *appl.* gill or bar in Salpidae.

hyperpituitarism (hī'pērpitū'itārizm) *n.* [Gk. *hyper*, above; *L. pituita*, phlegm.] Overaction of pituitary gland, resulting in gigantism or giantism; hyperhypophysis.

hyperplasia (hí'pērplā'siā) *n.* [Gk. *hyper*, above; *plassein*, to mould.] Overgrowth; excessive or hyperplastic development due to increase in number of cells; *cf.* hypertrophy.

hyperploid (hí'pērploid) *a.* [Gk. *hyper*, above; *haploos*, onefold; *eidos*, form.] Aneuploid with extra chromosomes, *opp.* hypoploid.

hyperpnoea (hí'pērpne'ā) *n.* [Gk. *hyper*, above; *pnoe*, breath.] Rapid breathing due to insufficient supply of oxygen.

hypersensitivity (hí'persēn'sitiv'itī) *n.* [Gk. *hyper*, above; *L. sentire*, to feel.] A condition of being unduly sensitive to a stimulus.

hypertely (hí'pēr'tēli) *n.* [Gk. *hyper*, above; *telos*, end.] Excessive imitation in colour or pattern, being of problematical utility; overdevelopment, as canines of Babirusa; hypertelia.

hypertensin,—angiotonin, *q.v.*

hypertonia (hí'pērtō'niā) *n.* [Gk. *hyper*, above; *tonos*, tone.] Excessive tonicity.

hypertrophy (hí'pēr'trōfī) *n.* [Gk. *hyper*, above; *trophē*, nourishment.] Excessive growth due to increase in size of cells; *cf.* hyperplasia.

hypha (hí'fā) *n.* [Gk. *hyphē*, web.] The thread-like element or filament of vegetative mycelium of a fungus; filamentous cell in medulla of an algal thallus.

hyphal,—of, or *pert.*, hyphae or a hypha.

hyphasma (hí'fāz'mā) *n.* [Gk. *hyphasma*, thing woven.] A barren mycelium; a cord of mycelium.

hyphodrome (hí'fōdrōm) *a.* [Gk. *hyphē*, web; *dromos*, course.] Running throughout the tissues; *appl.* thick leaves where veins are not visible from surface.

hypophodium (hí'fōpō'diūm) *n.* [Gk. *hyphē*, web, *pous*, foot.] A hyphal branch with enlarged terminal cell or haustorium for attaching the hypha, as in some Ascomycetes.

hyphostroma,—mycelium.

hypnobasidium, — sclerobasidium, *q.v.*

hypnocyst (hí'p'nōsist) *n.* [Gk. *hypnos*, sleep; *kystis*, bladder.] Cyst in which contained organism simply rests; dormant cyst.

hypnody (hí'p'nōdī) *n.* [Gk. *hypnodia*, sleepiness.] The long resting period of certain larval forms.

hypnogenic (hí'p'nōjēn'ik) *a.* [Gk. *hypnos*, sleep; *-genes*, producing.] Sleep-inducing; *appl.* influences which tend to produce hypnosis.

hypnosperm (hí'p'nōspērm) *n.* [Gk. *hypnos*, sleep; *sperma*, seed.] A hypnospor.

hypnosporangium (hí'p'nōspōrān'jūm) *n.* [Gk. *hypnos*, sleep; *sporos*, seed; *angeion*, vessel.] A sporangium containing resting spores.

hypnospor (hí'p'nōspōr) *n.* [Gk. *hypnos*, sleep; *sporos*, seed.] A resting spore; a zygote that remains in a quiescent condition during winter.

hypnote (hí'p'nōt) *n.* [Gk. *hypnos*, sleep.] An organism in a dormant condition.

hypnozygote (hí'p'nōzīgōt) *n.* [Gk. *hypnos*, sleep; *zygotos*, yoked.] A zygote that becomes encysted, thereby constituting a hypnospor, *e.g.* oospore, zygospor.

hypochaene (hí'pōākēn') *n.* [Gk. *hypo*, under; *a*, not; *chainein*, to gape.] Achene developed from an inferior ovary.

hypoarion (hí'pōā'rīōn) *n.* [Gk. *hypo*, under; *oarion*, little egg.] A small lobe below the optic lobes of most teleosts.

hypobasal (hí'pōbā'sāl) *n.* [Gk. *hypo*, under; *basis*, base.] The lower segment of a developing ovule, which ultimately gives rise to the root. *Opp.* epibasal.

hypobasidium (hí'pōbāsīd'iūm) *n.* [Gk. *hypo*, under; *basis*, base; *idion*, dim.] Basal cell or part of a heterobasidium, in which nuclei unite, and which gives rise to an epibasidium; a probasidium.

hypobenthos (hí'pōbēn'thos) *n.* [Gk. *under*; *benthos*, depths of the sea.] The fauna of the sea-bottom below 500 fathoms.

hypoblast (hí'pöblást) *n.* [Gk. *hypo*, under; *blastos*, bud.] The inner germ-layer in a gastrula.

hypoblastic (hí'pöblás'tík) *a.* [Gk. *hypo*, under; *blastos*, bud.] *Pert.*, or derived from, the inner germ-layer; endodermal.

hypobranchial (hí'pöbräng'kiäl) *a.* [Gk. *hypo*, under; *branchia*, gills.] *Pert.* lower or fourth segment of branchial arch.

hypocarp (hí'pökârp) *n.* [Gk. *hypo*, under; *karpós*, fruit.] A fleshy modified peduncle of certain fruits, as cashew-apple.

hypocentrum (hí'pösén'trüm) *n.* [Gk. *hypo*, under; *kentron*, centre.] A transverse cartilage that arises below nerve cord and forms part of vertebral centrum.

hypocercal (hí'pösér'käl) *a.* [Gk. *hypo*, under; *kerkos*, tail.] Having notochord terminating in lower lobe of caudal fin.

hypocerebral (hí'pösér'ëbräl) *a.* [Gk. *hypo*, under; L. *cerebrum*, brain.] *Appl.* ganglion of stomatogastric system, linked to frontal and ventricular ganglia, also to corpora cardiaca.

hypochilium (hí'pökí'liüm) *n.* [Gk. *hypo*, under; *cheilos*, lip.] The lower portion of lip of an orchid.

hypochondrium (hí'pökön'driüm) *n.* [Gk. *hypo*, under; *chondros*, cartilage.] Abdominal region lateral to epigastric and above lumbar.

hypochord (hí'pökörd) *n.* [Gk. *hypo*, under; *chorde*, cord.] A transitory subnotochordal rod in anamniotes.

hypochordal (hí'pökór'däl) *a.* [Gk. *hypo*, under; *chorde*, cord.] Below the notochord; *appl.* lower lobe of caudal fin; *appl.* bar of mesodermal tissue developing into ventral arch of atlas and amalgamating with fibrocartilages in other cervical vertebrae.

hypocleidium (hí'pöklidí'üm) *n.* [Gk. *hypo*, under; *kleidion*, little key.] The interclavicle.

hypocone (hí'pökön) *n.* [Gk. *hypo*, under; *konos*, cone.] Postero-internal cusp of upper molar; the

part posterior to girdle in *Dino-flagellata*, *opp.* epicone.

hypoconid (hí'pökō'nid) *n.* [Gk. *hypo*, under; *konos*, cone.] Postero-buccal cusp of lower molar.

hypoconule (hí'pökōn'ül) *n.* [Gk. *hypo*, under; *konos*, cone.] Fifth or distal cusp of upper molar.

hypoconulid (hí'pökōn'ülid) *n.* [Gk. *hypo*, under; *konos*, cone.] Postero-mesial cusp of lower molar.

hypocoracoid (hí'pökör'ákoid) *a.* [Gk. *hypo*, under; *korax*, crow; *eidos*, form.] *Pert.* lower bone at base of pectoral fin in fishes.

hypocotyl (hí'pököt'il) *n.* [Gk. *hypo*, under; *kotyle*, cup.] That portion of stem below cotyledons in an embryo.

hypocotyledonary (hí'pököt'ilē'dōn-äri) *a.* [Gk. *hypo*, under; *kotyledon*, hollow.] Below the cotyledons.

hypocrateriform (hí'pök'rätēr'ífōrm) *a.* [Gk. *hypo*, under; *krater*, bowl; L. *forma*, shape.] Saucer-shaped; having a gamopetalous corolla with long narrow tube, and limbs at right angles to tube; hypocraterimorphous.

hypodactylum (hí'pödäk'tilüm) *n.* [Gk. *hypo*, under; *daktylos*, digit.] The under surface of a bird's toes.

hypoderma (hí'pödēr'mä) *n.* [Gk. *hypo*, under; *derma*, skin.] Hypodermis; tissue just under epidermis in plants; hypoderm.

hypodermal (hí'pödēr'mäl) *a.* [Gk. *hypo*, under; *derma*, skin.] *Pert.* hypoderma; *pert.* hypodermis.

hypodermalia (hí'pödärmä'liä) *n. plu.* [Gk. *hypo*, under; *derma*, skin.] Sponge spicules situated just below the derma or skin.

hypodermic (hí'pödēr'mik) *a.* [Gk. *hypo*, under; L. *dermis*, skin.] *Pert.* parts just under the skin.

hypodermis (hí'pödēr'mis) *n.* [Gk. *hypo*, under; L. *dermis*, skin.] The cellular layer lying beneath and secreting the cuticle of Annulata, Arthropoda, etc.; hypoblast, *q.v.*; hypoderma, *q.v.*

hypodicrotic (hí'pōdikrōt'ík) *a.* [Gk. *hypo*, under; *di*, two; *krotein*, to beat.] Having two arterial beats for the one cardiac.

hypogaean,—hypogeal.

hypogastric (hí'pōgās'trík) *a.* [Gk. *hypo*, under; *gaster*, stomach.] *Pert.* lower median region of abdomen; *appl.* artery, vein, plexus, etc.

hypogastrium (hí'pōgās'trīūm) *n.* [Gk. *hypo*, under; *gaster*, stomach.] Lower median region of abdomen.

hypogastroid,—hypoischium, *q.v.*

hypogeal (hí'pōjē'āl) *a.* [Gk. *hypo*, under; *ge*, earth.] Underground; *appl.* stems, etc.; also hypogean.

hypogenesis (hí'pōjē'nēsís) *n.* [Gk. *hypo*, under; *genesis*, origin.] Development without occurrence of alternation of generations.

hypogenous (hí'pōjē'nūs) *a.* [Gk. *hypo*, under; *-genes*, produced.] Growing on lower surface of anything.

hypogeous (hí'pōjē'ūs) *a.* [Gk. *hypo*, under; *ge*, earth.] Growing or maturing under the soil surface.

hypoglossal (hí'pōglōs'āl) *n.* [Gk. *hypo*, under; *glossa*, tongue.] The twelfth paired cranial nerve, distributed to base of tongue.

hypoglottis (hí'pōglōt'ís) *n.* [Gk. *hypo*, under; *glotta*, tongue.] The under part of tongue; a division of labium of beetles.

hypognathous (hí'pōg'nāthūs) *a.* [Gk. *hypo*, under; *gnathos*, jaw.] Having the lower jaw slightly longer than the upper; with mouth-parts ventral, *appl.* head of insects.

hypogynium (hí'pōjín'īūm) *n.* [Gk. *hypo*, under; *gyne*, female.] Structure supporting ovary in such plants as sedges.

hypogynous (hí'pōjín'ūs) *a.* [Gk. *hypo*, under; *gyne*, female.] Inserted below the gynoeceum, and not adherent; immediately below oogonium, *appl.* antheridium, as in some Peronosporales.

hypohyal (hí'pōhí'āl) *n.* [Gk. *hypo*, under; *hyoeides*, Y-shaped.] The

hyoid element lying between ceratohyal and basihyal.

hypoischium (hí'pōis'kiūm) *n.* [Gk. *hypo*, under; *ischion*, hip.] A small bony rod passing backwards from ischiadic symphysis and supporting ventral cloacal wall; hypogastroid; os cloacae.

hypolemmal (hí'pōlēm'āl) *a.* [Gk. *hypo*, under; *lemma*, peel.] Beneath the sarcolemma; *appl.* arborisation of an axis cylinder in a motor plate.

hypolimnion (hí'pōlimni'ōn, -līm'-nyōn) *n.* [Gk. *hypo*, under; *limne*, lake.] The water between the thermocline and bottom of lakes. *Opp.* epilimnion.

hypomeral (hí'pōm'ērāl) *a.* [Gk. *hypo*, under; *meros*, part.] Hypomeric; *appl.* slender bones among lower trunk muscles in some fishes.

hypomere (hí'pōmēr) *n.* [Gk. *hypo*, under; *meros*, part.] Lower or lateral plate zone of coelomic pouches.

hypomeron (hí'pōm'ērōn) *n.* [Gk. *hypo*, under; *meros*, part.] The lateral inflexed side of a coleopterous prothorax.

hypomorph (hí'pōmōrf) *n.* [Gk. *hypo*, under; *morphe*, form.] A gene having a smaller effect than its wild-type allelomorph.

hyponasty (hí'pōnāstí) *n.* [Gk. *hypo*, under; *nastos*, close-pressed.] The state of growth in a flattened structure in which the under surface grows more vigorously than the upper.

hyponeural (hí'pōnū'rāl) *a.* [Gk. *hypo*, under; *neuron*, nerve.] *Appl.* system of radial and transverse motor nerves in echinoderms.

hyponome (hí'pōnōm) *n.* [Gk. *hypo-nomos*, water-pipe.] The funnel of Cephalopoda.

hyponychium (hí'pōnik'īūm) *n.* [Gk. *hypo*, under; *onyx*, nail.] Layer of epidermis on which nail rests.

hyponym (hí'pōnim) *n.* [Gk. *hypo*, under; *onyma*, name.] A generic name not founded on a type species.

hypoparatype (hí'pöpär'átip) *n.* [Gk. *hypo*, under; *para*, beside; *typhos*, pattern.] A specimen originally indicating a new species, but not chosen as a type specimen; *cf.* holotype, paratype.

hypopetalous (hí'pöpēt'älüs) *a.* [Gk. *hypo*, under; *petalon*, leaf.] Having corolla inserted below, and not adherent to, gynoeceum.

hypophamine,—*see* pitocin, pitressin.

hypophare (hí'pöfär) *n.* [Gk. *hypo*, under; *pharos*, cloth.] Lower part of sponge, in which there are no chambers; *cf.* spongophare.

hypopharyngeal (hí'pöfärín'jeäl) *a.* [Gk. *hypo*, under; *pharynx*, pharynx.] *Pert.* or situated below or on lower surface of pharynx.

hypopharynx (hí'pöfär'íngks) *n.* [Gk. *hypo*, under; *pharynx*, pharynx.] The lingua of many insects; in mosquitoes, an outgrowth from base of labium which bears the salivary groove or duct.

hypophloeodal (hí'pöflē'ödäl) *a.* [Gk. *hypo*, under; *phloios*, bark.] Living or growing under bark.

hypophragm (hí'pöfräm) *n.* [Gk. *hypo*, under; *phragma*, protection.] Operculum or epiphragm closing the opening of shell in some gastropods.

hypophyllum (hí'pöfil'tüm) *n.* [Gk. *hypo*, under; *phyllon*, leaf.] A scale-like leaf below a cladophyll; base of stipulate leaf, forming abscission layer.

hypophyllous (hí'pöfil'üs) *a.* [Gk. *hypo*, under; *phyllon*, leaf.] Located or growing under a leaf.

hypophysectomy (hí'pöfisēk'tömi) *n.* [Gk. *hypo*, under; *physis*, growth; *ek*, out; *temnein*, cut.] Excision or removal of the pituitary gland.

hypophysial (hí'pöfiz'äl) *a.* [Gk. *hypo*, under; *physis*, growth.] *Pert.* the hypophysis.

hypophysin (hí'pöf'isín) *n.* [Gk. *hypo*, under; *physis*, growth.] Pituitary extract.

hypophysis (hí'pöf'isis) *n.* [Gk. *hypo*, under; *physis*, growth.] The pituitary body; also hypophyseos;

the olfactory pit in the lancelet; the last cell of the suspensor; the cell from which root-tip arises in dicotyledons.

hypopituitarism (hí'pöpítū'itārizm) *n.* [Gk. *hypo*, under; L. *pituita*, phlegm.] Deficiency of pituitary gland, resulting in a type of infantilism; hypohypophyism.

hypoplasia (hí'pöplā'siā) *n.* [Gk. *hypo*, under; *plasis*, formation.] Developmental deficiency; hypoplastic development; deficient growth.

hypoplastron (hí'pöplās'trōn) *n.* [Gk. *hypo*, under; F. *plastron*, breast-plate.] The third lateral bony plate in plastron of Chelonia.

hypopleuron (hí'pöplor'ōn) *n.* [Gk. *hypo*, under; *pleuron*, side.] Region below metapleuron in insects.

hypoploid (hí'pöplōid) *a.* [Gk. *hypo*, under; *haploos*, onefold; *eidos*, form.] Aneuploid with fewer chromosomes; lacking one chromosome of the complement. *Opp.* hyperploid.

hypopneustic (hí'pönū'stik) *a.* [Gk. *hypo*, under; *pnein*, to breathe.] Having a reduced number of spiracles; *appl.* modified tracheal system in certain insects.

hypopodium (hí'pöpō'diūm) *n.* [Gk. *hypo*, under; *podion*, little foot.] Basal portion of a leaf, including stalk; style of carpel.

hypoproct (hí'pöprōkt) *n.* [Gk. *hypo*, under; *proktos*, anus.] Medial prolongation of terminal abdominal segment beneath the anus, in Diplopoda and some Insecta.

hypopteron (hí'pöp'tērōn) *n.* [Gk. *hypo*, under; *pteron*, feather.] Axillary feather in birds.

hypoptilum (hí'pöp'tilūm) *n.* [Gk. *hypo*, under; *ptilon*, down.] The aftershaft, *q.v.*

hypopus (hí'pöpūs) *n.* [Gk. *hypo*, under; *pous*, foot.] Cyst-like stage of Tyroglyphidae.

hypopyge (hí'pöpi'jē) *n.* [Gk. *hypo*, under; *pyge*, rump.] Claspings organ of male dipterous insect; also hypopygium.

hyporadiolus (hī'pōrādī'ōlūs) *n.* [Gk. *hypo*, under; L. *radiolus*, small rod.] A barbule of aftershaft of a feather.

hyporadius (hī'pōrād'iūs) *n.* [Gk. *hypo*, under; L. *radius*, rod.] A barb of aftershaft of a feather.

hyporhachis (hī'pōrā'kīs) *n.* [Gk. *hypo*, under; *rhachis*, spine.] The stem of aftershaft of a feather; also hyporachis.

hyposkeletal (hī'pōskēl'ētāl) *a.* [Gk. *hypo*, under; *skeletos*, hard.] Lying beneath or internally to endoskeleton.

hyposome (hī'pōsō'mīt) *n.* [Gk. *hypo*, under; *soma*, body.] Ventral part of a body segment, as in Amphioxus.

hyposphere (hī'pōsfēn) *n.* [Gk. *hypo*, under; *sphen*, wedge.] A wedge-shaped process on neural arch of vertebra of certain reptiles, which fits into hypantrum.

hypostasis (hīpōs'tāsīs) *n.* [Gk. *hypo*, under; *stasis*, standing.] Sediment or deposit, as of blood; recessiveness of non-allelomorphic characters; *cf.* epistasis.

hypostatic (hī'pōstāt'ik) *a.* [Gk. *hypo*, under; *stasis*, standing.] *Appl.* the recessive of two characters whose genes are not at the same time allelomorphs; exhibiting condition of hypostasis; *cf.* epistatic; *pert.* a sediment.

hypostereom (hī'pōstēr'ēōm) *n.* [Gk. *hypo*, under; *stereoma*, basis.] The third or inner layer of thecal plates, of Cystidea; the inner layer of integument, of Crinoidea.

hypostoma (hīpōs'tōmā) *n.* [Gk. *hypo*, under; *stoma*, mouth.] The fold bounding posterior margin of oral aperture in crustaceans; labrum or median preoral plate in trilobites; oral projection or manubrium of a hydrozoan; anteroventral region of insect head; ventral mouth part of ticks; hypostome.

hypostomatic (hī'pōstōmāt'ik) *a.* [Gk. *hypo*, under; *stoma*, mouth.] Situated beneath stomata of plant

epidermis; *appl.* chamber or cavity.

hypostomatous (hī'pōstōm'ātūs) *a.* [Gk. *hypo*, under; *stoma*, mouth.] Having stomata on under surface; having mouth placed on lower or ventral side.

hypostracum (hīpōs'trākūm) *n.* [Gk. *hypo*, under; *ostrakon*, shell.] Inner primary layer or endocuticle of exoskeleton in Acarina.

hypostroma (hī'pōstrō'mā) *n.* [Gk. *hypo*, under; *stroma*, bedding.] Basal part of a fungal stroma; entostroma, *q.v.* *Cf.* epistroma.

hypotarsus (hī'pōtār'sūs) *n.* [Gk. *hypo*, under; L. *tarsus*, ankle.] The calcaneum of a bird.

hypothalamus (hī'pōthāl'āmūs) *n.* [Gk. *hypo*, under; *thalamos*, chamber.] Region below thalamus, and structures forming greater part of floor of third ventricle.

hypothallus (hī'pōthāl'ūs) *n.* [Gk. *hypo*, under; *thallos*, young shoot.] Layer bearing sporangia in Myxomycetes; a sclerotium; undifferentiated hyphal growth, or marginal outgrowth, in lichens.

hypotheca (hīpōthē'kā) *n.* [Gk. *hypo*, under; *theke*, box.] Theca covering hypocoene in Dinoflagellata; younger half of frustule in diatoms.

hypothecium (hīpōthē'siūm, -shiūm) *n.* [Gk. *hypo*, under; *theke*, box.] The layer of dense hyphal threads below the thecium in lichens; subhymenium.

hypothenar (hī'pōthēn'ār) *a.* [Gk. *hypo*, under; *thenar*, palm of hand.] *Pert.* the prominent part of palm of hand above base of little finger.

hypothetical units, — the ultimate component parts of protoplasm; ultracellular units ranking between the molecule and the cell; also called variously, physiological units, pangens, gemmules, biophores, bioblasts, somacules, idiosomes, plasomes, micellae, plastidules, inotagmata, idioblasts, biogens, gemmae, microzymas, genes, gens, primordia.

hypotonic (hī'pōtōn'ik) *a.* [Gk. *hypo*, under; *tonos*, tension.] Having a lower osmotic pressure than that of another fluid, as of serum.

hypotrematic (hī'pōtrēmāt'ik) *a.* [Gk. *hypo*, under; *trema*, pore.] *Appl.* the lower lateral bar of branchial basket of lamprey.

hypotrichous (hīpōt'rikūs) *a.* [Gk. *hypo*, under; *thrix*, hair.] Having cilia mainly restricted to under surface; with deficient hair.

hypotrochanteric (hī'pōtrōk'āntēr'ik) *a.* [Gk. *hypo*, under; *trochanter*, runner.] Beneath the trochanter.

hypotympanic (hī'pōtīmpān'ik) *a.* [Gk. *hypo*, under; L. *tympanum*, drum.] Situated below the tympanum; *pert.* quadrate.

hypotype (hī'pōtīp) *n.* [Gk. *hypo*, under; *typos*, pattern.] Any specimen described or figured in order to amplify or correct the identification of a species; plesiotype, *q.v.*

hypovalve (hī'pōvālv) *n.* [Gk. *hypo*, under; L. *valva*, fold.] The antapical part of envelope in certain Dinoflagellata; hypocone.

hypoxanthine (hī'pōzān'thīn) *n.* [Gk. *hypo*, under; *xanthos*, yellow.] A crystalline nitrogenous substance found in glandular and muscle tissue and in some seeds; $C_8H_4ON_4$.

hypozygal (hīpōz'īgāl) *n.* [Gk. *hypo*, under; *zygon*, yoke.] Lower ossicle of a syzygial pair bearing no pinnule.

hypsiloid,—ypsiloid.

hypsodont (hīp'sōdōnt) *a.* [Gk. *hypsos*, height; *odontos*, tooth.] *Pert.* or designating teeth with high crowns and short roots; hypselodont.

hypsohyll (hīp'sōfīl) *n.* [Gk. *hypsī*, high; *phyllon*, leaf.] Any leaf beneath the sporophylls; bract, or bracteole.

hypural (hīpūrāl) *a.* [Gk. *hypo*, under; *oura*, tail.] *Pert.* a bony structure, formed by fused haemal spines of last few vertebrae, which supports caudal fin in certain fishes.

hysteranthous (hīstērān'thūs) *a.*

[Gk. *hysteros*, coming after; *anthos*, flower.] Leafing after appearance of flowers.

hysterectomy (hīs'tērēk'tōmī) *n.* [Gk. *hystera*, womb; *ek*, out; *temnein*, to cut.] Excision of the uterus.

hysteresis (hīstēr'ēsīs) *n.* [Gk. *hysteresis*, late arrival.] Lag in one of two associated processes or phenomena; lag in adjustment of external form to internal stresses, as in chromosome during spiralisation.

hysterochroic (hīs'tērōkrō'ik) *a.* [Gk. *hysteros*, later; *chros*, colour.] Gradually discolouring from base to tip; *appl.* ageing fruit-bodies.

hysterogenic (hīs'tērōjēn'ik) *a.* [Gk. *hysteros*, later; *genos*, birth.] Of later development or growth.

hysterophyte (hīs'terōfīt) *n.* [Gk. *hysteros*, inferior; *phyton*, plant.] Saprophyte, *q.v.*; any parasitic fungus.

hysterosoma (hīs'tērōsō'mā) *n.* [Gk. *hysteros*, after; *soma*, body.] Part of body posterior to proterosoma and comprising metapodosoma and opisthosoma in Acarina.

hysterotely (hīs'tērōt'ēlī) *n.* [Gk. *hysteros*, after; *telos*, completion.] The retention or manifestation of larval characters in pupa or imago, or of pupal characters in imago; metathetely, *opp.* prothetely.

hyther (hīth'ēr) *n.* [Gk. *hy(dor)*, water; *ther(me)*, heat.] Combined effect of moisture and temperature on an organism.

I

ichnite (ik'nīt) *n.* [Gk. *ichnos*, track.] A fossil footprint; ichnolite.

ichthyic (ik'thī'ik) *a.* [Gk. *ichthys*, fish.] *Pert.* or characteristic of fishes; ichthyoid.

ichthyodont (ik'thīōdōnt) *n.* [Gk. *ichthys*, fish; *odontos*, tooth.] A fossil tooth of fish.

ichthyodorulite (ik'thîödör'ülît) *n.* [Gk. *ichthys*, fish; *dory*, spear; *lithos*, stone.] A fossil dermal or fin spine of fish.

ichthyoid, (ik'thîoid) *a.* [Gk. *ichthys*, fish; *eidos*, form.] Fish-like; ichthyic.

ichthyolite (ik'thîölît) *n.* [Gk. *ichthys*, fish; *lithos*, stone.] A fossil fish or part of one.

ichthyology (ikthîöl'ôjî) *n.* [Gk. *ichthys*, fish; *logos*, discourse.] The study of fishes.

ichthyopterygia (ik'thîöptêrij'îä) *n. plu.* [Gk. *ichthys*, fish; *pteryx*, wing or fin.] Paired fish fins.

iconotype (ikö'nötîp) *n.* [Gk. *eikon*, image; *typos*, pattern.] Representation, drawing or photograph, of a type.

icosandrous (î'kösän'drüs) *a.* [Gk. *eikosi*, twenty; *aner*, man.] Having twenty or more stamens.

icotype (i'kötîp) *n.* [Gk. *eikon*, image; *typos*, pattern.] A representative specimen used for identification of a species.

id (îd) *n.* [Gk. *idios*, distinct.] A hypothetical structural unit; the chromomere; the instincts, collectively.

idant (îdânt) *n.* [Gk. *idios*, distinct.] A unit resulting from an aggregation of ids; the chromosome.

identical (îdênt'ikäl) *a.* [L. *idem*, the same.] *Appl.* progeny having the same genes, as monozygotic twins; *appl.* points on retina corresponding to those of the other eye.

ideoglandular (îdeöglän'dülär) *a.* [Gk. *idein*, to see; L. *glandula*, small acorn.] *Pert.* glandular activity induced by a mental image.

ideomotor (îdeömö'tör) *a.* [Gk. *idein*, to see; L. *movere*, to move.] *Pert.* unwilling movement in response to a mental image.

ideotype (îdeötîp) *n.* [Gk. *idein*, to see; *typos*, pattern.] Specimen, other than a topotype, named by the author who has described the species to which it belongs.

ideovascular (îdeöväs'külär) *a.* [Gk.

idein, to see; L. *vasculum*, small vessel.] *Pert.* circulatory changes induced by a mental image.

idioandrosperous (îd'îöändröspö'rüs) *a.* [Gk. *idios*, distinct; *aner*, male; *sporos*, seed.] With androspores formed on filaments that do not bear oogonia.

idiobiology (îd'îöbiöl'ôji) *n.* [Gk. *idios*, personal; *bios*, life; *logos*, discourse.] Biology of an individual organism; autobiology.

idioblast (îd'îöbläst) *n.* [Gk. *idios*, distinct; *blastos*, bud.] A hypothetical unit, *q.v.*; plant cell containing oil, gum, calcium carbonate, or other product and which differs from the surrounding parenchyma.

idicalyptosome (îd'îökälîp'trösöm) *n.* [Gk. *idios*, distinct; *kalyptra*, covering; *soma*, body.] Outer zone derived from idiosphaerosome in sperm cells.

idiochromatin (îd'îökrö'mätîn) *n.* [Gk. *idios*, distinct; *chroma*, colour.] Temporarily dormant generative chromatin; *cf.* trophochromatin.

idiochromidia (îd'îökrö'mîd'îä) *n. plu.* [Gk. *idios*, distinct; *chroma*, colour.] Sporeta; generative chromidia; *cf.* trophochromidia.

idiochromosome (îd'îökrö'mösöm) *n.* [Gk. *idios*, distinct; *chroma*, colour; *soma*, body.] A sex chromosome.

idiocryptosome (îd'îökrîp'tösöm) *n.* [Gk. *idios*, distinct; *kryptos*, hidden; *soma*, body.] Inner zone derived from idiosphaerosome in sperm cells.

idiogram (îd'îögräm) *n.* [Gk. *idios*, distinct; *gramma*, drawing.] A diagrammatic representation of a characteristic chromosomal constitution.

idiomuscular (îd'îömüs'külär) *a.* [Gk. *idios*, peculiar; L. *musculus*, muscle.] *Appl.* contraction of a degenerated muscle artificially stimulated.

idiophthartosome (îd'îöfthâr'tösöm) *n.* [Gk. *idios*, distinct; *phthartos*, transitory; *soma*, body.] The idiozome remnant.

idioplasm (id'ïöplāzm) *n.* [Gk. *idios*, distinct; *plasma*, mould.] Chromatin; the generative or germinal part of a cell; *cf.* trophoplasm.

idiosoma (idiösö'mā) *n.* [Gk. *idios*, distinct; *soma*, body.] The body, prosoma and opisthosoma, of Acarina.

idiosome (id'ïösöm) *n.* [Gk. *idios*, distinct; *soma*, body.] A hypothetical unit, *q.v.*; sphere or region of cytoplasm differing in viscosity from remainder of cell and surrounding the centriole or centrosome; *idiazome, q.v.*

idiosphaerosome (id'ïösfē'rösöm) *n.* [Gk. *idios*, distinct; *sphaira*, globe; *soma*, body.] Acrosome; central granule of idiosphaerotheca.

idiosphaerotheca (id'ïösfē'röthē'kā) *n.* [Gk. *idios*, distinct; *sphaira*, globe; *theke*, case.] Acroblast; vesicle containing acrosome in sperm cells.

idiothalamous (id'ïöthāl'amūs) *a.* [Gk. *idios*, distinct; *thalamos*, room.] *Appl.* lichens in which various parts are differently coloured from thallus.

idiothermous (id'ïöthēr'mūs) *a.* [Gk. *idios*, personal; *thermos*, hot.] Warm-blooded; homoiothermal.

idiotrophic (id'ïötrof'ik) *a.* [Gk. *idios*, personal; *trophe*, nourishment.] Capable of selecting food.

idiotype (id'ïötíp) *n.* [Gk. *idios*, personal; *typos*, pattern.] Individual genotype.

idiovariation,—mutation, *q.v.*

idiazome (id'ïözöm) *n.* [Gk. *idios*, distinct; *zoma*, girdle.] In spermatogenesis a separated portion of archoplasm which ultimately becomes head-cap of spermatozoon; centrotheca; a cell-body of auxocytes containing the centrioles.

I-disc,—singly refracting or isotropic band in myofibrillae.

idorgan (id'örgän) *n.* [Gk. *idios*, distinct; *organon*, instrument.] A purely morphological multicellular unit which does not possess the features of a soma.

ileac (il'ēäk) *a.* [Gk. *eilo*, to roll up.] *Pert.* ileum; ileal; *appl.* arteries, lymph-glands.

ileocaecal (il'ēösē'käl) *a.* [L. *ileum*, groin; *caecus*, blind.] *Pert.* ileum and caecum; *appl.* fossae, folds.

ileocolic (il'ēököl'ik) *a.* [L. *ileum*, groin; Gk. *kolon*, colon.] *Pert.* ileum and colon; *appl.* artery, lymph-glands.

ileum (il'ēüm) *n.* [L. *ileum*, groin.] Lower part of small intestine; anterior part of hind-gut in insects.

iliac (il'īäk) *a.* [L. *ilia*, flanks.] *Pert.* ilium, a pelvic bone; *appl.* artery, fossa, furrow, tuberosity, vein, etc.; *appl.* muscle, iliacus, from upper part of iliac fossa to side of tendon of psoas major; *appl.* processes of ischiopubic plate; forming base for pelvic fins.

iliocaudal (il'īökô'däl) *a.* [L. *ilia*, flanks; *cauda*, tail.] Connecting ilium and tail; *appl.* muscle.

iliococcygeal (il'īököksij'eäl) *a.* [L. *ilia*, flanks; Gk. *koktyx*, cuckoo.] *Pert.* ileum and coccyx; *appl.* a muscle.

iliocostal (il'īökös'täl) *a.* [L. *ilia*, flanks; *costa*, rib.] In region of ilia and ribs; *appl.* several muscles.

iliofemoral (il'ïöfēm'öräl) *a.* [L. *ilia*, flanks; *femur*, thigh.] *Pert.* ilium and femur; *appl.* a ligament.

iliohypogastric (il'ïöhī'pögäs'trik) *a.* [L. *ilia*, flanks; Gk. *hypo*, under; *gaster*, stomach.] *Pert.* ilium and lower anterior part of abdomen; *appl.* a nerve.

ilio-inguinal (il'ïöing'gwīnäl) *a.* [L. *ilia*, flanks; *inguen*, groin.] In the region of ilium and groins; *appl.* a nerve.

ilio-ischiadic (il'ïöiskiäd'ik) *a.* [L. *ilia*, flanks; Gk. *ischion*, hip.] *Appl.* fenestra between ilium and ischium when these are fused at both ends.

iliolumbar (il'ïölüm'bär) *a.* [L. *ilia*, flanks; *lumbus*, loin.] In region of ilium and loins; *appl.* artery, ligament, vein.

iliopectineal (il'ïöpëktīn'eäl) *a.* [L. *ilia*, flanks; *pecten*, crest.] *Appl.*

an eminence marking point of union of ilium and pubis; *appl.* fascia.

iliopsoas (il'jösö'äs, -psö'äs) *n.* [L. *ilia*, flanks; Gk. *psoa*, loins.] Iliacus and psoas major considered as one muscle.

iliotibial (il'jötib'äl) *a.* [L. *ilia*, flanks; *tibia*, shin.] *Appl.* tract or band of muscle at lower end of thigh.

iliotrochanteric (il'jötörökäntēr'ik) *a.* [L. *ilia*, flanks; Gk. *trochanter*, runner.] Uniting ilium and trochanter of femur; *appl.* a ligament.

ilium (il'jüm) *n.* [L. *ilium*, flank.] That part of hip-bone supporting the flank; dorsal bone of pelvic arch.

illuvial (ilü'viäl) *a.* [L. *in*, into; *luere*, to wash.] *Appl.* lower soil layers or B horizon.

imaginal (imäj'inäl) *a.* [L. *imago*, image.] *Pert.* an imago; *appl.* larval discs, patches of cells from which new organs develop.

imago (imä'gö) *n.* [L. *imago*, image.] The last or adult stage in insect metamorphosis; the perfect insect.

imbibition (im'bibish'un) *n.* [L. *in*, into; *bibere*, to drink.] Absorption of fluids, as of water by roots.

imbricate (im'brikät) *a.* [L. *imbricare*, to tile.] Having parts overlapping each other like roof-tiles; *appl.* scales, plates, bud-scales, bracts.

imbrication lines,—parallel growth lines of dentine; contour lines of Owen.

imitative (im'itätiv) *a.* [L. *imitari*, to imitate.] *Appl.* form, structure, habit, colouring, etc., assumed for protection or aggression.

immaculate (imäk'ülät) *a.* [L. *in*, not; *macula*, spot.] Without spots or marks of different colour.

immarginate (imär'jinät) *a.* [L. *in*, not; *margo*, edge.] Without a distinct margin.

immune body,—heat-stable antibody or lysin; amboceptor, *q.v.*

immunise (imüniz', im'üniz) *v.* [L.

immunis, free.] To render invulnerable to a toxin, usually by injecting the toxin in small quantities at short intervals, without appearance of severe symptoms.

immunity (imü'niti) *n.* [L. *immunis*, free.] An organism's resistance, natural or acquired, to the onset of pathological conditions from infection, natural or artificial, by micro-organisms or their products.

impar (im'pär) *a.* [L. *impar*, unequal.] Not paired; not existing in pairs; *azygous*.

imparidigitate (impär'idij'ität) *a.* [L. *impar*, unequal; *digitus*, finger.] Having an odd number of digits.

imparipinnate (impär'ipin'ät) *a.* [L. *impar*, unequal; *pinnna*, wing.] Unequally pinnate; pinnate with an odd terminal leaflet.

impedicellate (impäd'isälät) *a.* [L. *in*, not; *pediculus*, small foot.] Without short or slender stalks; not having pedicels.

imperfect (impär'fäkt) *a.* [L. *imperfectus*, unfinished.] Incomplete; *appl.* fungi lacking the sexual spore stage.

imperforate (impär'förät) *a.* [L. *in*, not; *per*, through; *foratus*, bored.] Not pierced; *appl.* foraminiferous shells without fine pores in addition to principal opening.

impervious (impär'viüs) *a.* [L. *in*, not; *pervius*, passable.] Not permeable; *appl.* nostrils with septum between nasal cavities.

implant (im'plänt) *n.* [L. *in*, into; *plantare*, to plant.] An organ or part transplanted to an abnormal position; a graft.

implantation cone,—cone of origin, *q.v.*

implex (im'pläks) *n.* [L. *implexus*, plaited.] Endoplica or infolding of integument for muscle attachment in insects.

importation (impörtä'shün) *n.* [L. *importare*, to carry into.] Ingestion by sinking of food into protoplasm of captor, as in certain protozoa.

impregnation (im'prēgnā'shūn) *n.* [L. *impregnare*, to fertilise.] Transference of spermatozoa from male to body of female; insemination.

impressio (imprēs'īō) *n.* [L. *impressio*, impression.] Impression or concavity in one organ or structure where in contact with another, as of surface of liver in contact with stomach, etc.

impuberal (impū'bērāl) *a.* [L. *impubes*, under age.] Prepubertal; sexually immature.

impulse (im'pūls) *n.* [L. *impulsus*, driven.] Self-propagated disturbance induced by excitation.

inanthérate (inān'thérat) *a.* [L. *in*, not; Gk. *antheros*, flowering.] Without anthers; anantherous.

inappendiculate (in'āpēndik'ūlāt) *a.* [L. *in*, not; *appendicula*, small appendage.] Without appendages.

inarticulate (inārtik'ūlāt) *a.* [L. *in*, not; *articulatus*, jointed.] Not segmented; not jointed.

inaxon (ināk'sōn) *n.* [Gk. *is*, fibre; *axon*, axis.] A nerve-cell with axis-cylinder branching at a distance from it.

inbreeding,—breeding through a succession of parents belonging to the same stock, or very nearly related.

Inca bones,—distinct portions of interparietal, found in skulls of former Peruvians; os interparietale.

incaliculate (inkālik'ūlāt) *a.* [L. *in*, not; *caliculus*, small flower-cup.] Wanting a calicle.

incasement theory,—preformation theory, *q.v.*

incisal (insī'sāl) *a.* [L. *incidere*, to cut into.] Cutting, as edge of a tooth.

incised (insīzd') *a.* [L. *incisus*, cut into.] With deeply notched margin.

incisiform (insī'zīfōrm) *a.* [L. *incisus*, cut into; *forma*, shape.] Incisor-shaped.

incisive (insī'siv) *a.* [L. *incisus*, cut into.] *Pert.* or in region of incisors; *appl.* bones, foramina, fossa.

incisor (insī'sōr) *a.* [L. *incisus*, cut

into.] Adapted for cutting, *appl.* mammalian premaxillary teeth. *n.* A crest or ridge of palatine process of maxilla.

incisura (insīsūrā) *n.* [L. *incidere*, to cut into.] Notch, depression, or indentation, as in bone, stomach, liver, etc.

included (inklood'ēd) *a.* [L. *includere*, to shut in.] Having stamens and pistils not protruding beyond corolla; not exerted.

inclusion bodies,—intracellular particles, as pigment granules, mitochondria, Golgi bodies, microsomes, viruses, etc.

incomplete metamorphosis,—insect metamorphosis in which young are hatched in general adult form and develop without quiescent stage.

incongruent (inkōng'groōēnt) *a.* [L. *incongruens*, not suiting.] Not suitable or fitting; *appl.* surface of joints which do not fit properly.

incoordination (in'kōōr'dinā'shūn) *n.* [L. *in*, not; *cum*, together; *ordo*, order.] Want of co-ordination; irregularity of movement due to loss of muscle control.

incrassate (inkrās'āt) *a.* [L. *incrassare*, to thicken.] Thickened; becoming thicker.

incretion (inkrē'shūn) *n.* [L. *in*, into; *cretus*, separated.] Internal secretion; autacoid.

incrustation (inkrustā'shūn) *n.* [L. *in*, into; *crusta*, shell.] Fossilisation by encasement in mineral substance.

incubation (in'kūbā'shūn) *n.* [L. *incubare*, to lie on.] The hatching of eggs by means of heat, natural or artificial; period between infection and appearance of symptoms induced by parasitic organisms.

incubatorium (in'kūbātō'rīūm) *n.* [L. *incubare*, to lie on.] Temporary pouch surrounding mammary area, in which egg of *Echidna* is hatched.

incubous (in'kūbūs) *a.* [L. *incubare*, to lie on.] *Appl.* leaves so arranged that the base of each is covered by upper portion of next lower.

incudal (in'kūdāl) *a.* [L. *incus*, anvil.] *Pert.* the incus; *appl.* fold, fossa.

incudate (inkū'dāt) *a.* [L. *incus*, anvil.] *Appl.* type of rotifer mastax with large and hooked rami and reduced mallei.

incumbent (inkūm'bēnt) *a.* [L. *in-cumbere*, to lie upon.] Lying upon; bent downwards to lie along a base; *appl.* cotyledons so folded that flat sides are next radicle; *appl.* hairs or spines applied lengthwise to their base; *appl.* insect wings resting on abdomen.

incurrent (inkūr'ēnt) *a.* [L. *in*, into; *currere*, to run.] Leading into; afferent; *appl.* ectoderm-lined canals which admit water, in sponges; *appl.* inhalant siphons of molluscs.

incurvate (inkūr'vāt) *a.* [L. *incurvus*, bent.] Curved inwards or bent back; incurved, inflected.

incurvation (in'kūr'vā'shūn) *n.* [L. *incurvare*, to curve.] The doubling back on itself of a structure or organ, as of a spirochaete about to divide.

incus (in'kūs) *n.* [L. *incus*, anvil.] Part of a rotifer mastax; the anvil-shaped ear ossicle of mammals.

indeciduate (in'dēsīd'ūāt) *a.* [L. *in*, not; *decidere*, to fall down.] Non-caducous; with maternal part of placenta not coming away at birth.

indeciduous (in'dēsīd'ūūs) *a.* [L. *in*, not; *decidere*, to fall down.] Persistent; not falling off at maturity; everlasting; evergreen.

indefinite (indēf'īnit) *a.* [L. *in*, not; *definitus*, limited.] Not limited; not determinate; of no fixed number; racemose, *q.v.*

indehiscent (in'dēhīs'ēnt) *a.* [L. *in*, not; *dehiscens*, gaping.] Not splitting at maturity; *appl.* certain fruits.

indeterminate (in'dētēr'mīnāt) *a.* [L. *in*, not; *determinare*, to limit.] Indefinite; undefined; not classified.

indeterminate growth,—growth of stem, branch or shoot not limited

or stopped by development of a terminal bud; indefinite prolongation and subdivision of an axis.

indeterminate inflorescence,—growth of a floral axis by indefinite branching because unlimited by development of a terminal bud.

index,—the forefinger or digit next to the thumb; a number or formula expressing ratio of one quantity to another.

indicators,—species characteristic of climatic, soil and other conditions in a particular region or habitat; dominant species in a biotope.

indigenous (Indij'ēnūs) *a.* [L. *indigena*, native.] Belonging to the locality; not imported; native.

individual (in'divid'ūāl) *a.* [L. *in*, not; *dividuus*, divisible.] *Pert.* a single example or unit, as individual variations of colour. *n.* A person or zooid of distinctive function of a hydrozoan colony.

individualism,—symbiosis in which the two parties together form what appears to be a single organism.

individuation,—development of interdependent functional units, as in colony formation; organisation of morphogenetic processes; regional or tissue differentiation; process of developing into an individual.

indole-acetic acid,—see heteroauxin.

induced movement,—movement dictated and influenced by external stimulus, as plant curvature.

induction (indūk'shūn) *n.* [L. *inducere*, to lead in.] Act or process of causing to occur; process whereby a cell or tissue influences neighbouring cells or tissues; lowering by one reflex of the threshold of another, spinal induction.

inductive stimulus,—an external stimulus which influences growth or behaviour of an organism.

indumentum (in'dūmēn'tūm) *n.* [L. *indumentum*, covering.] The plumage of birds; a hairy covering.

induplicate (indū'plikāt) *a.* [L. *in*, in; *duplex*, double.] In vernation, having bud-leaves bent or rolled without overlapping; in aestivation,

having bud sepals or petals folded inwards at points of contact.

induplicative (indū'plikātiv) *a.* [L. *in*, in; *duplex*, double.] *Appl.* vernation or aestivation with induplicate foliage or floral leaves respectively.

indurescent (in'dūrēs'ent) *a.* [L. *indurescere*, to harden.] Becoming firmer or harder.

indusia,—*plu.* of indusium.

indusial (indū'ziāl) *a.* [L. *induere*, to put on.] Containing larval insect cases, as certain limestones; *pert.* the indusium.

indusiate (indū'ziāt) *a.* [L. *induere*, to put on.] Having an enveloping case, *appl.* insect larvae; having an indusium.

indusiform (indū'zifōrm) *a.* [L. *induere*, to put on; *forma*, shape.] Resembling an indusium.

indusium (indū'ziūm) *n.* [L. *induere*, to put on.] An outgrowth of plant epiderm covering and protecting a sorus, as in ferns; outgrowth hanging from top of stipe in certain fungi; cup-like fringe of hairs surrounding a stigma; an insect larva case; the supracallosal gyrus of the rhinencephalon, indusium griseum.

induviae (indū'viē) *n. plu.* [L. *induviae*, garments.] Scale-leaves; leaves which remain attached to stem after withering.

induviate (indū'viāt) *a.* [L. *induviae*, garments.] Covered with scale-leaves or induviae.

inequilateral (inēk'wīlāt'erāl) *a.* [L. *in*, not; *aequus*, equal; *latus*, side.] Having two sides unequal; having unequal portions on either side of a line drawn from umbo to gape of a bivalve shell.

inequilobate (inēk'wīlō'bāt) *a.* [L. *in*, not; *aequus*, equal; *lobus*, lobe.] With lobes of unequal size.

inequivalve (inēk'wīvālv) *a.* [L. *in*, not; *aequus*, equal; *valvae*, folding doors.] Having two valves of shell unequal; *appl.* molluscs.

inerm (inērm') *a.* [L. *inermis*,

unarmed.] Without means of defence and offence; without spines; inermous.

inert (inērt') *a.* [L. *iners*, inactive.] Physiologically inactive; *appl.* heterochromatic region of chromosome with paucity of active genes.

inferior (infēr'iōr) *a.* [L. *inferior*, lower.] *Appl.* lower placed of two, farther down axis; growing or arising below another organ.

inferoanterior (in'fērōāntē'rīōr) *a.* [L. *inferus*, beneath; *anterior*, in front.] Below and in front.

inferobranchiate (in'fērōbrāng'kiāt) *a.* [L. *inferus*, beneath; Gk. *branchia*, gills.] With gills under margin of mantle, as in certain molluscs.

inferolateral (in'fērōlāt'erāl) *a.* [L. *inferus*, beneath; *latus*, side.] Below and at or towards the side.

inferomedian (in'fērōmē'diān) *a.* [L. *inferus*, beneath; *medius*, middle.] Below and about the middle.

inferoposterior (in'fērōpōstē'rīōr) *a.* [L. *inferus*, beneath; *posterior*, behind.] Below and behind.

inferradial (in'fērā'diāl) *n.* [L. *inferus*, beneath; *radius*, radius.] Lower part of transversely bisected radials of certain fossil crinoids.

inflected (inflek'tēd) *a.* [L. *inflectere*, to bend in.] Curved or abruptly bent inwards or towards the axis; inflexed.

inflorescence (in'flōrēs'ens) *n.* [L. *inflorescere*, to begin to blossom.] A flowering or putting forth blossoms; method in which flowers are arranged on an axis.

influent (in'flooēnts) *n. plu.* [L. *influerē*, to flow into.] The animals present in a plant community, or those primarily dependent and acting upon the dominant plant species.

infra-axillary (in'frāāk'silārī) *a.* [L. *infra*, below; *axilla*, armpit.] Branching off below the axil.

infrabasal (in'frābā'sāl) *n.* [L. *infra*, below; *basis*, base.] One of a series of plates, perradial in position, below the basals in crinoids.

infrabranchial (in'fräbräng'kiäl) *a.* [L. *infra*, below; *branchiae*, gills.] Below the gills; *appl.* part of pallial chamber.

infracentral (in'fräsën'träl) *a.* [L. *infra*, below; *centrum*, centre.] Below a vertebral centrum.

infraciliature (in'fräsil'iätür) *n.* [L. *infra*, below; *cilia*, eyelashes.] The structures or organellae just below the cilia, consisting of kinetia, in Ciliata.

infraclavicle (in'fräkläv'ikël) *n.* [L. *infra*, below; *clavicula*, little key.] Membrane bone occurring in pectoral girdle of some fishes.

infraclavicular (in'fräkläv'ik'ülär) *a.* [L. *infra*, below; *clavicula*, small key.] Beneath the clavicle; *appl.* branches of brachial plexus; *appl.* fossa or triangle between deltoid and pectoralis major.

infracortical (in'fräkör'tikäl) *a.* [L. *infra*, below; *cortex*, bark.] Beneath the cortex.

infracostal (in'fräkös'täl) *a.* [L. *infra*, below; *costa*, rib.] Beneath the ribs; *appl.* muscles.

infradentary (in'frädën'täri) *a.* [L. *infra*, below; *dens*, tooth.] Beneath the dentary bone.

infraglenoid (in'fräglë'noid) *a.* [L. *infra*, below; Gk. *glene*, socket; *eidos*, like.] Below glenoid cavity; *appl.* a tuberosity.

infrahyoid (infrähi'oid) *a.* [L. *infra*, below; Gk. *hyooides*, Y-shaped.] Beneath the hyoid; *appl.* muscles.

infralabial (in'frälä'bial) *a.* [L. *infra*, below; *labium*, lip.] Beneath the lower lip.

inframarginal (infrämär'jinäl) *a.* [L. *infra*, below; *margo*, margin.] Under the margin, or marginal structure; *appl.* a cerebral convolution; *appl.* certain plates on carapace of Chelonia below marginals; *appl.* lower of two series of plates round margin of stelleroid arms and discs.

inframaxillary (in'främäksil'äri) *a.* [L. *infra*, below; *maxilla*, jaw.] Beneath maxilla; *appl.* nerves.

infranasal (in'fränä'zäl) *n.* [L. *infra*,

below; *nasus*, nose.] An additional nasal element in some Thero-morpha.

infraorbital (in'fräôr'bitäl) *a.* [L. *infra*, below; *orbis*, eye-socket.] Beneath the orbit; *appl.* artery, canal, foramen, groove, nerve, glands, etc.

infrapatellar (in'fräpätël'är) *a.* [L. *infra*, below; *patella*, knee-cap.] *Appl.* pad of fat beneath patella; *appl.* bursa between tibia and ligamentum patellae.

infrastrostral (in'frärsös'träl) *a.* [L. *infra*, below; *rostrum*, snout.] Beneath a rostrum; *appl.* paired cartilages, derived from Meckel's cartilage, of lower part of suctorial mouth of tadpoles.

infrascapular (in'fräskäp'ülär) *a.* [L. *infra*, below; *scapula*, shoulder-blade.] Beneath the scapula; *appl.* artery.

infraspecific (in'fräspësif'ik) *a.* [L. *infra*, below; *species*, particular kind.] *Pert.* a subdivision of a species, as subspecies and varieties.

infraspinatous (in'fräsp'inä'tūs) *a.* [L. *infra*, below; *spina*, spine.] Beneath the spine; beneath scapular spine; *appl.* muscle, fossa; infraspinous.

infrastapedial (in'frästäpē'diäl) *a.* [L. *infra*, below; *stapes*, stirrup.] Beneath stapes of ear; *appl.* part of columella.

infrasternal (in'frästēr'näl) *a.* [L. *infra*, below; *sternum*, breast-bone.] Below the breast-bone; *appl.* notch superficially at lower end of sternum.

infratemporal (in'frätēm'pöräl) *a.* [L. *infra*, below; *tempora*, temples.] Beneath the temporal bone; *appl.* a crest and fossa.

infratrochlear (in'frätörök'lëär) *a.* [L. *infra*, below; *trochlea*, pulley.] Beneath the trochlea; *appl.* a nerve given off from nasociliary nerve.

infructescence (in'früktës'ëns) *n.* [L. *in*, into; *fructus*, fruit.] An inflorescence matured into a fruit; a composite or confluent fruit.

infundibula,—*plu.* of *infundibulum*; passages surrounded by air-cells in the lung.

infundibular (in'fūndīb'ulār) *a.* [L. *infundibulum*, funnel.] Funnel-shaped; *appl.* an abdominal muscle; *appl.* corolla; *infundibuliform*; choanoid, *q.v.*; *pert.* *infundibulum*.

infundibulin (infūndīb'ūlin) *n.* [L. *infundibulum*, funnel.] An extract of posterior pituitary lobe causing decrease in renal water excretion; antidiuretin; *infundin*.

infundibulum (in'fūndīb'ulūm) *n.* [L. *infundibulum*, funnel.] Any funnel-shaped organ or structure; *appl.* part of brain, of ethmoid bone, of right ventricle, etc.; conus arteriosus; a cephalopod siphon; part of bird's oviduct; flattened stomach-like cavity of ctenophore; septal funnel in Scyphozoa.

infusate (infūs'kāt) *a.* [L. *in*, into; *fuscus*, dark.] Tinged to appear dark, as insect wings.

infusoriform (in'fūsō'riform) *a.* [L. *infusus*, poured into; *forma*, shape.] Resembling an infusorian; *appl.* embryonic forms of Coelentera; *appl.* male form of Dicyemidae.

infusorigen (in'fūsō'rījēn) *n.* [L. *infusus*, poured into; *genos*, offspring.] A gastrula-like phase in development of certain Mesozoa.

ingest (injēst') *v.* [L. *ingestus*, taken in.] To convey food material into the alimentary canal or food-cavity.

ingesta (injēs'tā) *n. plu.* [L. *ingestus*, taken in.] The sum-total of substances taken in by the body. *Opp.* *egesta*.

ingestion (injēs'tiōn) *n.* [L. *ingestus*, taken in.] The swallowing or taking in of food-material.

ingluvies (ingloov'iēz) *n.* [L. *ingluvies*, crop.] The crop of a bird; a dilatation of oesophagus; the rumen.

inguinal (ing'gwīnāl) *a.* [L. *inguen*, groin.] In region of groin.

inguinal ring,—*see* abdominal ring.

inguino-abdominal,—in region of abdomen and groin.

inguino-crural,—in region of groin and leg.

inhalant (Inhāl'lant) *a.* [L. *in*, into; *halare*, to breathe.] Adapted for inspiring or drawing in, as terminal pores of incurrent canals in sponges, or siphons in molluscs.

inhibin (inhīb'in) *n.* [L. *inhibere*, to restrain.] A testicular hormone depressing gonadotrophic activity of prehypophysis.

inhibition (in'hībīsh'ōn) *n.* [L. *inhibere*, to restrain.] Prohibition, or checking, of an action or process.

inhibitory (Inhīb'itōrī) *a.* [L. *inhibere*, to restrain.] *Appl.* nerves which control movement or secretion.

inion (in'īōn) *n.* [Gk. *inion*, back of head.] The external protuberance of occipital bone.

initial (inīsh'āl) *n.* [L. *initium*, beginning.] A cell which initiates differentiation of tissues, as in apical meristem, vascular cambium, etc.; histogen cell, primordial cell.

ink sac,—in *Sepia*, a pear-shaped body in wall of mantle cavity which contains the ink gland, secreting a black substance, ink or sepia, ejection of which is a means of defence.

innate (in'nāt) *a.* [L. *innatus*, in-born.] Inherited; basifixed, *appl.* anther with filament attached only to base.

innervation (in'nervā'shūn) *n.* [L. *in*, into; *nervus*, sinew.] Nerve-distribution; vital nerve force.

innidiation (in'nīdiā'shūn) *n.* [L. *in*, into; *nidus*, nest.] Colonisation or development of cells or organisms in a part of the body to which they have been transferred by metastasis, *q.v.*

innominate (Innōm'ināt) *a.* [L. *in*, not; *nomen*, name.] Nameless; *appl.* various arteries and veins.

innominate artery,—truncus brachiocephalicus.

innominate bone,—the hip-bone or lateral half of pelvic girdle; os coxae, os innominatum.

innominate veins,—left and right brachiocephalic veins.

- innovation** (in'övā'shūn) *n.* [L. *innovare*, to renew.] A growth or shoot of mosses which develops into a new plant by dying-off of portion of parent-plant behind it; basal vegetative shoot of grasses.
- inocomma** (i'nókōm'ā) *n.* [Gk. *is*, fibre; *komma*, clause.] Portion of muscle fibril between telophragmata or Z discs; inokomma; sarcomere.
- inocular** (inök'ülār) *a.* [L. *in*, into; *oculus*, eye.] *Appl.* antennae inserted close to eye.
- inoculum** (inök'ülūm) *n.* [L. *inoculare*, to engraft.] The cells, bacteria, spores, etc. introduced into a medium for cultures.
- inocyte** (i'nösit) *n.* [Gk. *is*, fibre; *kytos*, hollow.] Elongated cell of fibrous tissue.
- inogen** (i'nöjēn) *n.* [Gk. *is*, fibre; *gennaein*, to produce.] A nitrogenous substance of muscle tissue.
- inoperculate** (in'öpēr'külāt) *a.* [L. *in*, un-; *operculum*, lid.] Without a lid or operculum.
- inophragma** (i'nöfrāg'mā) *n.* [Gk. *is*, fibre; *phragma*, fence.] The transverse membrane through adjacent myofibrillae; mesophragma and telophragma; M and Z lines bisecting A- and I-discs.
- inosculate** (inös'külāt) *v.* [L. *in*, in; *osculari*, to kiss.] To intercommunicate or unite, as vessels, ducts, etc.; to anastomose.
- inositol**,—carbohydrate present in cells, the lipotropic anti-alopecia factor of bios, *q.v.*; $C_6H_{12}O_6$.
- inotagmata** (i'nötāg'mātā) *n. plu.* [Gk. *is*, fibre; *tagma*, arrangement.] Hypothetical units, *q.v.*
- inquiline** (in'kwilīn) *n.* [L. *inquilinus*, tenant.] Animal living in home of another and getting share of its food; partner in commensalism; an insect developing in gall produced by an insect of another species, being detrimental to the latter.
- inscriptions**, **tendinous**,—three fibrous bands crossing the rectus abdominis muscle.
- insectivorous** (in'séktiv'örūs) *a.* [L. *insectum*, cut into; *vorare*, to devour.] Insect-eating; *appl.* certain animals and carnivorous plants.
- insemination** (in'sēmīnā'shūn) *n.* [L. *in*, in; *seminatio*, sowing.] The introduction of semen or spermatozoa into female genital tract.
- inserted** (insēr'tēd) *a.* [L. *in*, in; *serere*, to join.] United by natural growth.
- insertion** (insēr'shūn) *n.* [L. *insertus*, joined.] Point of attachment of organs, as of muscles, leaves; point on which force of a muscle is applied.
- insertional**,—*appl.* translocation in which the portion between two breaks of a chromosome is transferred to a break in another chromosome; *cf.* shift.
- inessorial** (in'sēsō'riāl) *a.* [L. *insidere*, to sit upon.] Adapted for perching.
- insistent** (insis'tēnt) *a.* [L. *insistere*, to stand upon.] *Appl.* hind toe, of certain birds, whose tip only reaches the ground.
- insolation** (insölā'shūn) *n.* [L. *in*, into; *sol*, sun.] Exposure to sun's rays.
- inspiration** (inspīrā'shūn) *n.* [L. *inspirare*, to inhale.] The act of drawing air into the lungs; absorption of oxygen by plants.
- instaminate** (instām'īnāt) *a.* [L. *in*, not; *stamen*, thread.] Not bearing stamens.
- instar** (in'stār) *n.* [L. *instar*, form.] Insect at a particular stage between moults.
- instipulate** (instīp'ülāt) *a.* [L. *in*, not; *stipula*, stalk.] Without stipules; estipulate, exstipulate.
- insula** (in'sülā) *n.* [L. *insula*, island.] Island of Reil, a triangular eminence lying deeply in lateral fissure of temporal lobe; islet of Langerhans, *q.v.*; a blood island, *q.v.*
- insulin** (in'sülīn) *n.* [L. *insula*, island.] The anti-diabetic endocrine product of pancreas, formed in β -cells of islets of Langerhans; $C_{45}H_{89}O_{14}N_{11}S \cdot 3H_2O$.

integrifolious (intĕg'rifō'liūs) *a.* [L. *integer*, whole; *folium*, leaf.] With entire leaves.

integripallial (intĕg'ripāl'iāl), **integripalliate** (intĕg'ripāl'iāt) *a.* [L. *integer*, whole; *pallium*, mantle.] Having an unbroken pallial line; *appl.* shells of molluscs with small or no siphons.

integument (intĕg'ūmĕnt) *n.* [L. *integumentum*, covering.] A covering, investing, or coating structure or layer; coat of ovule; integumentum.

interacinous (in'tērās'inūs) *a.* [L. *inter*, between; *acinus*, grape.] Among alveoli of a racemose gland; interacinar.

interalveolar (in'tērāl'vēōlār) *a.* [L. *inter*, among; *alveolus*, small cavity.] Among alveoli; *appl.* cell islets.

interamb (intĕrāmb') *n.* [L. *inter*, between; *ambulare*, to walk.] Interambulacral area.

interambulacral (in'tērāmbulāk'rāl) *a.* [L. *inter*, between; *ambulare*, to walk.] *Appl.* area of echinoderm test between two ambulacral areas. *n.* A plate of that area.

interambulacrum (in'tērāmbulāk'rūm) *n.* [L. *inter*, between; *ambulare*, to walk.] The area between two ambulacral areas.

interarticular (in'tērārtik'ulār) *a.* [L. *inter*, between; *articulus*, joint.] Between articulating parts of bones; *appl.* certain ligaments and fibrocartilages.

interatrial (in'tērā'triāl) *a.* [L. *inter*, between; *atrium*, hall.] *Appl.* groove and septum separating the two atria of the heart.

interaauricular (in'tērōrik'ulār) *a.* [L. *inter*, between; *auricula*, little ear.] Between auricles of heart.

interaxillary (in'tērāk'silārī) *a.* [L. *inter*, between; *axilla*, armpit.] Placed between the axils.

interbrachial (in'tērbrāk'kiāl) *a.* [L. *inter*, between; *brachium*, arm.] Between arms, rays, or brachial plates.

interbrain,—diencephalon.

interbranchial (in'tērbrāng'kiāl) *a.*

[L. *inter*, between; *branchiae*, gills.] *Appl.* septum between successive gill slits.

interbreed (in'tērbrēd') *v.* [L. *inter*, between; A.S. *brod*, brood.] To cross different varieties of plants or animals.

intercalare (in'tĕrkāl'ārē) *n.* [L. *intercalaris*, inserted.] In many fishes and fossil amphibians, an additional element in the vertebra.

intercalarium (in'tĕrkālār'iūm) *n.* [L. *intercalaris*, inserted.] The third Weberian ossicle.

intercalary (in'tĕrkāl'ārī, in'tĕrkālārī) *a.* [L. *intercalaris*, inserted.] Inserted between others; *appl.* meristematic layers between masses of permanent tissue; *appl.* growth elsewhere than at growing point; *appl.* veins between main veins of insect wings; *appl.* plates in Dinoflagellata; *appl.* bands in diatoms; *appl.* cartilage between neural arches, interneural or interdorsal plate.

intercapitular (in'tĕrkāpit'ulār) *a.* [L. *inter*, between; *capitulum*, little head.] Between capitula; *appl.* veins of fingers and toes.

intercarotid (in'tĕrkārōt'id) *a.* [L. *inter*, between; Gk. *karos*, deep sleep.] Between carotid arteries.

intercarpal (in'tĕrkār'pāl) *a.* [L. *inter*, between; *carpus*, wrist.] Among or between carpal bones; *appl.* joints.

intercarpellary (in'tĕrkār'pĕlārī) *a.* [L. *inter*, between; Gk. *karpos*, fruit.] Between the carpels.

intercartilaginous (in'tĕrkārtilāj'inūs) *a.* [L. *inter*, between; *cartilago*, gristle.] Between cartilages.

intercavernous (in'tĕrkāv'ĕrnūs) *a.* [L. *inter*, between; *caverna*, cavern.] *Appl.* sinuses connecting cavernous sinuses, part of ophthalmic veins.

intercellular (in'tĕrsĕl'ulār) *a.* [L. *inter*, between; *cellula*, little cell.] Among or between cells, as spaces in meristem, biliary passages among liver-cells, plexus of dendrites between sympathetic ganglion cells, etc.

intercentral (in'tersén'träl) *a.* [L. *inter*, between; *centrum*, centre.] Uniting, or between, two centra.

intercentrum (in'tersén'trüm) *n.* [L. *inter*, between; *centrum*, centre.] A second central ring in an embolomerous vertebra.

interchange,—mutual or reciprocal translocation, in chromosomes.

interchondral (in'terkôn'dräl) *a.* [L. *inter*, between; Gk. *chondros*, cartilage.] *Appl.* articulations and ligaments between costal cartilages.

interchromosomal (in'térkrö'mó'sómäl) *a.* [L. *inter*, between; Gk. *chroma*, colour; *soma*, body.] Between chromosomes; *appl.* fibrils playing part in the beginning of cell-wall formation in plants.

intercingular (in'tersing'gülar) *a.* [L. *inter*, between; *cingulum*, girdle.] *Appl.* area of longitudinal groove between parts of a spiral girdle, in certain Dinoflagellata.

interclavicle (in'térkläv'ikl) *n.* [L. *inter*, between; *clavicula*, small key.] The episternum; a median ventral bone between clavicles.

interclavicular (in'térkläv'ik'ülär) *a.* [L. *inter*, between; *clavicula*, small key.] Between the clavicles; *appl.* a ligament.

interclinoid (in'térkli'noid) *a.* [L. *inter*, between; Gk. *kline*, bed; *eidos*, form.] Joining clinoid processes; *appl.* fibrous process or ligament.

intercolumnar (in'térkölüm'när) *a.* [L. *inter*, between; *columna*, column.] Between columnar structures, as certain abdominal muscle fibres.

intercondyloid (in'térkôn'diloid) *a.* [L. *inter*, between; Gk. *kondylos*, knob; *eidos*, form.] Between condyles; *appl.* an eminence of tibia, and fossae of femur and tibia.

intercostal (in'térkös'täl) *a.* [L. *inter*, between; *costa*, rib.] Between the ribs, as arteries, glands, membranes, nerves, veins, muscles; between ribs of leaf, mericarp, etc.

intercostobrachial (in'térkös'töbrä'kiäl) *a.* [L. *inter*, between; *costa*,

rib; *brachium*, arm.] *Appl.* lateral branch of second intercostal nerve which supplies upper arm; intercostohumeral.

intercoxal (in'térkök'säl) *a.* [L. *inter*, between; *coxa*, hip.] Between the coxae or proximal limb-joints of arthropods; *appl.* plate, etc.

intercrescence (in'térkrēs'ëns) *n.* [L. *inter*, between; *crescere*, to grow.] A growing into each other, as of tissues.

intercrural (in'térkroo'räl) *a.* [L. *inter*, between; *crus*, leg.] *Appl.* intercolumnar tendinous fibres arching across external oblique muscles.

intercuneiform (in'térkünē'iförm) *a.* [L. *inter*, between; *cuneus*, wedge; *forma*, shape.] Connecting the three cuneiform bones of the ankle; *appl.* articulations and ligaments.

interdeferential (in'térdefären'shäl) *a.* [L. *inter*, between; *deferre*, to carry down.] Between the vasa deferentia.

interdigital (in'térdij'itäl) *a.* [L. *inter*, between; *digitus*, finger.] Between digits; *appl.* glands.

interfascicular (in'térfäsik'ülär) *a.* [L. *inter*, between; *fasciculus*, small bundle.] Situated between the fascicles or vascular bundles; *appl.* cambium.

interfemoral (in'térfëm'öräl) *a.* [L. *inter*, between; *femur*, thigh bone.] Between the thighs.

interference (in'térfë'rëns) *n.* [L. *inter*, between; *ferire*, to strike.] The lessened probability of crossing-over in the neighbourhood of a previous crossing-over.

interfertile (in'térfër'til) *a.* [L. *inter*, between; *fertilis*, fertile.] Able to interbreed.

interfilamentar (in'térfilämën'tär) *a.* [L. *inter*, between; F. *filament*, from L. *filum*, thread.] *Appl.* junctions or horizontal bars connecting molluscan gill filaments.

interfilar (in'térfilär) *a.* [L. *inter*, between; *filum*, thread.] *Appl.* ground-substance of protoplasm, as opposed to reticulum.

interfoliaceous (in'tēr'föllā'shūs) *a.* [L. *inter*, between; *folium*, leaf.] Situated or arising between two opposite leaves; *interfoliar*.

interfrontal (in'tērfrūn'tāl) *n.* [L. *inter*, between; *frons*, forehead.] An unpaired median bone between frontals and nasals in Eryops.

interganglionic (in'tērgänggliōn'ik) *a.* [L. *inter*, between; Gk. *ganglion*, little tumour.] Connecting two ganglia, as nerve cords or strands.

intergemmal (in'tērjēm'āl), *a.* [L. *inter*, between; *gemma* bud.] Between taste buds; *appl.* nerve fibres.

intergeneric (in'tērjēnēr'ik) *a.* [L. *inter*, between; *genus*, kind.] Between genera; *appl.* hybridisation.

intergenital (in'tērjēn'itāl) *a.* [L. *inter*, between; *genitalis*, generative.] Between the genitals; *appl.* certain echinoderm plates.

interglacial (in'tērglā'siāl) *a.* [L. *inter*, between; *glacies*, ice.] *Appl.* or *pert.* ages between glacial ages, particularly of the Pleistocene epoch.

interglobular (intērglōb'ülär) *a.* [L. *inter*, between; *globulus*, small globe.] *Appl.* a series of spaces towards outer surface of dentine, due to imperfect calcification.

intergular (in'tērgū'lär) *n.* [L. *inter*, between; *gula*, gullet.] A paired or unpaired plate in front of gulars in Chelonia.

interhyal (in'tērhi'äl) *n.* [L. *inter*, between; Gk. *hyooides*, T-shaped.] A small bone between hyomandibular and rest of hyoid of some higher vertebrates.

interkinesis (in'tērkīnē'sis) *n.* [L. *inter*, between; Gk. *kinesis*, movement.] Interphase; resting stage between two mitotic divisions of a cell.

interlamellar (in'tērlāmēl'är) *a.* [L. *inter*, between; *lamella*, thin plate.] *Appl.* vertical bars of tissue joining gill lamellae of molluscs; *appl.* compartments of lung-book in scorpions and spiders; *appl.* spaces between lamellae or gills of agarics.

interlaminar (in'tērlām'inär) *a.* [L. *inter*, between; *lamina*, thin plate.] Uniting laminae; between laminae.

interlobar (in'tērlō'bär) *a.* [L. *inter*, between; L.L. *lobus*, lobe.] Between lobes; *appl.* sulci and fissures dividing cerebral hemispheres into lobes.

interlobular (in'tērlōb'ülär) *a.* [L. *inter*, between; *lobulus*, small lobe.] Occurring between lobules; *appl.* kidney arteries, vessels of liver, etc.

interlocular (in'tērlök'ülär) *a.* [L. *inter*, between; *loculus*, compartment.] Between loculi.

interloculus (in'tērlök'ülüs) *n.* [L. *inter*, between; *loculus*, compartment.] Space between two loculi.

intermandibular (in'tērmändib'ülär) *a.* [L. *inter*, between; *mandibulum*, jaw.] Between rami of mandibles.

intermaxilla (in'tērmäksil'ä) *n.* [L. *inter*, between; *maxilla*, jaw.] Bone between maxillae; the premaxilla.

intermaxillary (in'tērmäksil'äri) *a.* [L. *inter*, between; *maxilla*, jaw.] Between maxillae; *pert.* premaxillae; *appl.* gland in nasal septum of certain amphibians and reptiles.

intermediary (in'tērmē'diäri) *a.* [L. *inter*, between; *medius*, middle.] Acting as a medium; *appl.* nerve-cells receiving impulses from afferent cells and transmitting them to efferent cells.

intermediate (in'tērmē'diät) *a.* [L. *inter*, between; *medius*, middle.] Occurring between two points or parts; *appl.* a nerve-mass, certain areas of brain, ribs, etc.

intermediate disc,—a thin doubly refracting disc in the middle of the singly refracting disc of myofibrils in striated muscle; Dobie's line, Krause's membrane, plasmophore, telophragma, Z-disc.

intermediate host,—host intervening between two others in life-history of certain parasites, as *Limnaea* in life-history of *Fasciola*.

intermedin (in'térmě'dín) *n.* [L. *inter*, between; *medius*, middle.] Hormone obtained from pars intermedia of the pituitary gland; B substance; melanocyte-stimulating hormone.

intermedium (in'térmě'diūm) *n.* [L. *inter*, between; *medius*, middle.] A small bone of carpus and tarsus.

intemesenteric (in'térmě'sentēr'ík, -méz-) *a.* [L. *inter*, between; Gk. *mesos*, middle; *enteron*, gut.] Occurring between mesenteries; *appl.* spaces in sea-anemones.

intermitotic (in'térmítót'ík) *n.* [L. *inter*, between; Gk. *mitos*, thread.] A cell with individual life between mitoses causing its origin and division into daughter cells; *cf.* postmitotic.

intermuscular (in'térmūs'kulār) *a.* [L. *inter*, between; *musculus*, muscle.] Between or among muscle fibres.

intermyotomic (in'térmí'otóm'ík) *a.* [L. *inter*, between; Gk. *mys*, muscle; *tome*, cutting.] *Appl.* vertebra formed of caudals of one somite and cranials of next posterior; *cf.* intrasegmental.

internal (intēr'nāl) *a.* [L. *internus*, within.] Located on inner side; nearer middle axis; located or produced within.

internal secretion,—endocrine secretion; hormone.

internal spiral,—coil within a single chromatid, as between prophase and anaphase.

internasal (in'térnā'zāl) *a.* [L. *inter*, between; *nasus*, nose.] Between nostrils; *appl.* plate, septum, gland.

interneural (in'térnū'rāl) *a.* [L. *inter*, between; Gk. *neuron*, nerve.] Between neural processes, arches or spines; *appl.* sharp bones attached to dorsal fin rays; *appl.* intercalary cartilages.

interneurone (in'térnū'rōn) *n.* [L. *inter*, between; Gk. *neuron*, nerve.] An internuncial neurone or relay cell; interneuron.

internodal (in'térnō'dāl) *a.* [L. *inter*,

between; *nodus*, knot.] *Pert.* part between two nodes.

internode (in'térnōd) *n.* [L. *inter*, between; *nodus*, knot.] The part between two successive nodes or joints, as of plant stem, of medullated nerve fibre; non-genetic segment of a chromosome.

internodia (in'térnō'diā) *n. plu.* Phalanges.

internum (intēr'nūm) *n.* [L. *internus*, inward.] Inner region or medulla of a mitochondrion or of Golgi apparatus; or of acroblast.

internuncial (in'térnūn'siāl) *a.* [L. *inter*, between; *nuntius*, messenger.] Intercommunicating, as paths of transmission or nerve fibres; *appl.* neurone interposed between afferent and efferent nerve cells, association neurone.

interoceptor (in'tērōsēp'tōr) *n.* [L. *internus*, inside; *capere*, to take.] A receptor which receives stimuli from within the body; end-organ for visceral sensibility.

interocular (in'tērōk'ulār) *a.* [L. *inter*, between; *oculus*, eye.] Placed between the eyes.

interoperculum (in'tērōpēr'kulūm) *n.* [L. *inter*, between; *operculum*, lid.] A membrane bone of operculum of Teleostomi and Dipnoi, attached to mandible; interopercle.

interoptic (in'tērōp'tík) *a.* [L. *inter*, between; Gk. *optikos*, *pert.* sight.] Between optic lobes.

interorbital (in'tērōr'bitāl) *a.* [L. *inter*, between; *orbis*, eye-socket.] Between the orbits; *appl.* septum of tropibasic skull; *appl.* sinus.

interosculant (in'tērōs'kulānt) *a.* [L. *inter*, between; *osculari*, to kiss.] Possessing characters common to two or more groups or species.

interosseous (in'tērōs'ēūs) *a.* [L. *inter*, between; *os*, bone.] Occurring between bones; *appl.* arteries, membranes, muscles, nerves.

interparietal (in'tērpāri'etāl) *a.* [L. *inter*, between; *paries*, wall.] In many vertebrates a bone arising between parietals and supra-occipital.

interpeduncular (in'tèrpédüŋ'kūlār)

a. [L. *inter*, between; *pedunculus*, little foot.] *Appl.* fossa between cerebral peduncles, and a ganglion.

interpetaloid (in'tèrpèt'älöid) *a.* [L.

inter, between; Gk. *petalon*, leaf; *eidōs*, form.] Between petaloid areas of an echinoderm test.

interpetiolar (in'tèrpèt'ïölār) *a.* [L.

inter, between; *petiolus*, little foot.] Situated between petioles or bases of opposite leaves.

interphalangeal (in'tèrfälän'jëäl) *a.*

[L. *inter*, between; Gk. *phalangx*, line of battle.] *Appl.* articulations between successive phalanges.

interphase (in'tèrfāz) *n.* [L. *inter*,

between; Gk. *phasis*, aspect.] Resting stage between first and second mitotic divisions; interkinesis.

interplacental (in'tèrpläsën'täl) *a.*

[L. *inter*, between; *placenta*, flat cake.] Between placentae.

interpleural (in'tèrploo'räl) *a.* [L.

inter, between; Gk. *pleuron*, side.] Between pleurae.

interpleurite (in'tèrploor'it) *n.* [L.

inter, between; Gk. *pleuron*, side.] A small sclerite between sclerites of the pleura; intersegmental pleural sclerite.

interpositional growth,—of cells, by interposition between neighbouring cells without loss of contact; intrusive growth. *Opp.* sliding growth.

interpubic (in'tèrpū'bik) *a.* [L.

inter, between; *pubes*, mature.] *Appl.* the fibrocartilaginous lamina between pubic bones.

interracial (in'tèr-rä'siäl) *a.* [L.

inter, between; *radix*, root.] Between races or breeds; *appl.* hybridisation, differences, etc.

interradial (in'tèr-rä'diäl) *a.* [L.

inter, between; *radius*, radius.] *Pert.* an interradius.

interradium (in'tèr-rä'diüm) *n.* [L.

inter, between; *radius*, radius.] The area between two radii of any radially symmetrical animal.

interradius (in'tèr-rä'diūs) *n.* [L.

inter, between; *radius*, radius.]

The radius of a radiate animal halfway between two perradii.

interramal (in'tèr-rä'mäl) *a.* [L.

inter, between; *ramus*, branch.] Between branches or rami.

interramicorn (in'tèr-räm'lkörn) *n.*

[L. *inter*, between; *ramus*, branch; *cornu*, horn.] A piece of a bird's bill beyond mandibular rami forming the gonys.

interrrenal (in'tèr-rē'näl) *a.* [L. *inter*,

between; *renes*, kidneys.] Between the kidneys; *appl.* veins.

interrrenal body,—a gland, situated

between kidneys of elasmobranchs, representing the adrenal cortex of higher vertebrates.

interrupted (in'tèr-rüp'tèd) *a.* [L.

inter, between; *rumpere*, to break.] With continuity broken; irregular; asymmetrical.

interruptedly pinnate,—pinnate

with pairs of small leaflets occurring between larger ones.

interscapular (in'tèrskäp'ülār) *a.* [L.

inter, between; *scapula*, shoulder-blade.] Between the shoulder-blades; *appl.* feathers; *appl.* brown fatty tissue, so-called hibernating gland, as in some rodents.

intersegmental (in'tèrsëgmën'täl) *a.*

[L. *inter*, between; *segmentum*, piece.] Between segments; between spinal segments, *appl.* axons, septa.

intersegmentalia (in'tèrsëg'mëntä-

liä) *n. plu.* [L. *inter*, between; *segmentum*, piece.] Sclerites between adjacent body segments in insects, as intertergites, interpleurites, intersternites.

interseptal (in'tèrsép'täl) *a.* [L.

inter, between; *septum*, fence.] *Pert.* spaces between septa or partitions.

intersex (in'tèrsëks) *n.* [L. *inter*,

between; *sexus*, sex.] An organism with characteristics intermediate between typical male and typical female of its species; an organism first developing as a male or female, then as an individual of the opposite sex; a sex mosaic in time; *cf.* gynandromorph.

interspecific (In'terspēsīf'ik) *a.* [L. *inter*, between; *species*, kind.] Between distinct species; *appl.* crosses, as mule, hinny, cattalo, tigrone; *appl.* selection.

intersphincteric (In'tersfīngktēr'ik) *a.* [L. *inter*, between; Gk. *sphīngktēr*, tight band.] Between sphincters; *appl.* groove of anal canal.

interspicular (In'terspīk'ulār) *a.* [L. *inter*, between; *spīculum*, sharp point.] Occurring between spicules.

interspinal (In'terspī'nāl) *a.* [L. *inter*, between; *spīna*, spine.] Occurring between spinous processes or between spines; *appl.* bones, muscles, ligaments.

interspinous,—interspinal.

interstapedial (In'terstāpē'diāl) *a.* [L. *inter*, between; *stapes*, stirrup.] *Appl.* a part of columella of ear.

intersterility (In'terstērīl'itē) *n.* [L. *inter*, between; *sterilis*, unfruitful.] Incapacity for interbreeding.

intersternal (In'terstēr'nāl) *a.* [L. *inter*, between; *sternum*, breast-bone.] Between the sterna; *appl.* ligaments connecting manubrium and body of sternum.

intersternite (In'terstēr'nīt) *n.* [L. *inter*, between; *sternum*, breast-bone.] A sternal sclerite between thoracic segments of insects; intersegmental sternite; a furcasternite, *q.v.*

interstitial (In'terstīsh'iāl) *a.* [L. *inter*, between; *sistere*, to set.] Occurring in interstices or spaces; *appl.* growth; *appl.* lamellae between Haversian systems; *appl.* cells within tissues, *e.g.* within gonad tissues; *appl.* soil-water.

intertemporal (In'tértēm'pōrāl) *n.* [L. *inter*, between; *tempora*, temples.] A paired membrane bone, part of sphenoid complex, fusing with alisphenoids; dermosphenotic.

intertentacular (In'tértēntāk'ulār) *a.* [L. *inter*, between; *tentaculum*, feeler.] Between tentacles; *appl.* a ciliated tube opening at base of

tentacles and connecting coelom and exterior, found in Molluscoidea.

intertergal (In'tértēr'gāl) *a.* [L. *inter*, between; *tergum*, back.] Between tergites or dorsal sclerites.

intertergite (In'tértēr'jit) *n.* [L. *inter*, between; *tergum*, back.] A small sclerite between dorsal sclerites; intersegmental tergal sclerite.

intertidal (In'tértī'dāl) *a.* [L. *inter*, between; A.S. *tid*, time.] *Appl.* shore organisms living between high- and low-water marks.

intertrabecula (In'tērtrābēk'ulā) *n.* [L. *inter*, between; *trabecula*, little beam.] A separate plate between the trabeculae anteriorly, in some birds.

intertropic (Intērtrāj'ik) *a.* [L. *inter*, between; Gk. *tragos*, goat.] *Appl.* notch between tragus and antitragus.

intertrochanteric (In'tērtrōkāntēr'ik) *a.* [L. *inter*, between; Gk. *trochanter*, runner.] Between trochanters; *appl.* crest, line.

intertrochlear (In'tērtrōklēār) *a.* [L. *inter*, between; *trochlea*, pulley.] *Appl.* an ulnar ridge fitting into a groove of the humerus.

intertubercular (In'tértübēr'kulār) *a.* [L. *inter*, between; *tuberculum*, small hump.] *Appl.* plane of body through tubercles of iliac crests; *appl.* sulcus between tubercles of humerus.

intervaginal (In'tervāj'ināl) *a.* [L. *inter*, between; *vagina*, sheath.] Between sheaths; *appl.* space.

intervarietal (In'tervārī'ētāl) *a.* [L. *inter*, between; *varius*, diverse.] *Appl.* crosses between two distinct varieties of a species.

interventricular (In'tervēntrik'ulār) *a.* [L. *inter*, between; *ventricula*, small cavity.] Between ventricles; *appl.* foramen between third and lateral ventricles, foramen of Monro.

intervertebral (In'tervēr'tēbrāl) *a.* [L. *inter*, between; *vertebra*, vertebra.] Occurring between vertebrae; *appl.* discs, fibrocartilages, foramina, veins.

intervillous (In'tervíl'üs) *a.* [L. *inter*, between; *villi*, hairs.] Occurring between villi; *appl.* spaces in trophoblastic network filled with maternal blood.

interxylary (In'térzi'lári) *a.* [L. *inter*, between; Gk. *xylon*, wood.] Between xylem strands; *appl.* phloem.

interzonal (In'térzō'nāl) *a.* [L. *inter*, between; *zona*, belt.] Between two zones; *appl.* spindle fibres uniting groups of daughter chromosomes in anaphase of mitosis.

interzoecial (In'térzōē'siāl) *a.* [L. *inter*, between; *zoon*, animal; *oikos*, house.] Occurring among zoecia.

intestinal (Intēs'tināl, intesti'nāl) *a.* [L. *intestina*, entrails.] *Pert.* intestines; *appl.* glands, villi, etc.

intestine (Intēs'tīn) *n.* [L. *intestina*, entrails.] Part of alimentary canal from pylorus to anus, or part corresponding to this.

intextine (Intēk'stīn) *n.* [L. *intus*, within; *exter*, without.] An inner membrane of an extine.

intima (In'timā) *n.* [L. *intimus*, innermost.] The innermost lining membrane of a part or organ; tunica intima.

intine (In'tīn) *n.* [L. *intus*, within.] The inner covering membrane of a pollen grain, or of a spore. *Opp.* extine.

intribiontic (In'trābiōn'tīk) *a.* [L. *intra*, within; Gk. *bios*, life; *on*, being.] *Appl.* a process of selection occurring in a living unit.

intribulbar,—intribammal, *q.v.*

intracapsular (In'trākāp'sulār) *a.* [L. *intra*, within; *capsula*, small chest.] Contained within a capsule; *appl.* protoplasm of Radiolaria; *appl.* dendrites.

intracardiac (In'trākār'diāk) *a.* [L. *intra*, within; Gk. *kardia*, heart.] Endocardiac, *q.v.*

intracartilaginous (In'trākār'tilāj'inūs) *a.* [L. *intra*, within; *cartilago*, gristle.] Inside the cartilage; *appl.* ossification; endochondral.

intracellular (In'trāsēl'ulār) *a.* [L.

intra, within; *cellula*, small room.] Within the cell.

intracortical (In'trākōr'tīkāl) *a.* [L. *intra*, within; *cortex*, rind.] Within the cortex; uniting parts of brain cortex.

intra-epithelial (In'trāēpīthē'liāl) *a.* [L. *intra*, within; Gk. *epi*, upon; *thele*, nipple.] Occurring in epithelium; *appl.* glands, usually mucous.

intrafascicular (In'trāfāsīk'ulār) *a.* [L. *intra*, within; *fasciculus*, little bundle.] Within a vascular bundle.

intrafoliaceous (In'trāfōliā'shūs) *a.* [L. *intra*, within; *folium*, leaf.] *Appl.* stipules encircling stem and forming a sheath; ochreate.

intrafusil (In'trāfū'zāl) *a.* [L. *intra*, within; *fusus*, spindle.] *Appl.* fasciculi and fibres connected respectively with neurotendinous and neuromuscular spindles.

intragemmal (In'trājēm'āl) *a.* [L. *intra*, within; *gemma*, bud.] Within a taste-bud; *appl.* nerve fibres, spaces.

intraglobular (In'trāglōb'ulār) *a.* [L. *intra*, within; *globulus*, globule.] Occurring within a globule or corpuscle.

intrajugular (In'trājūg'ulār) *a.* [L. *intra*, within; *jugulum*, throat.] *Appl.* a process in middle of jugular notch of occipital bone.

intralamellar (In'trālāmēl'ār) *a.* [L. *intra*, within; *lamella*, thin plate.] Within a lamella; *appl.* trama of gill-bearing fungi.

intra-lobular (In'trālōb'ulār) *a.* [L. *intra*, within; *lobulus*, small lobe.] Occurring within lobules; *appl.* veins draining liver lobules.

intramembranous (In-trāmēm'brān-ūs) *a.* [L. *intra*, within; *membrana*, film.] Within a membrane; *appl.* bone development.

intramolecular (In'trāmōlēk'ulār) *a.* [L. *intra*, within; F. *molécule*, small particle.] *Appl.* plant respiration from splitting up of complex substances within the cell.

intranuclear (In'trānū'klēār) *a.* [L. *intra*, within; *nucleus*, kernel.]

Within the nucleus ; *appl.* spindles, fibres, etc.

intraparietal (in'trăpări'etăl) *a.* [L. *intra*, within ; *paries*, wall.] Enclosed within an organ ; within parietal lobe, as sulcus, etc.

intrapetalous (in'trăpêt'ălūs) *a.* [L. *intra*, within ; Gk. *petalon*, leaf.] Situated in a petaloid area, in echinoderms.

intrapetiolar (in'trăpêt'îolăr) *a.* [L. *intra*, within ; *petiolus*, little foot.] Within the petiole base expansion.

intrapleural (in'trăplo'o'răl) *a.* [L. *intra*, within ; Gk. *pleuron*, side.] Within the thoracic cavity.

intrasegmental (in'trăsêgmên'tăl) *a.* [L. *intra*, within ; *segmentum*, part.] *Appl.* vertebra formed of cranial and caudal elements of same original myotome ; *cf.* intermyotomic.

intrasélection (in'trăsêlêk'shün) *n.* [L. *intra*, within ; *selectio*, choice.] Selection within an organ, of cells fittest to survive.

intrasexual (in'trăsêk'sūāl) *a.* [L. *intra*, within ; *sexus*, sex.] *Appl.* selection of competing individuals of the same sex.

intraspecific (in'trăspêsif'ik) *a.* [L. *intra*, within ; *species*, particular kind ; *facere*, to make.] Within a species ; *appl.* selection of individuals.

intraspicular (in'trăspik'ulăr) *a.* [L. *intra*, within ; *spicula*, small spike.] Having spicules completely embedded in spongin.

intrastelar (in'trăstê'lăr) *a.* [L. *intra*, within ; Gk. *stela*, pillar.] Within the stele of a stem or root ; *appl.* ground tissue, bundles, etc.

intratarsal (in'trătâr'säl) *a.* [L. *intra*, within ; *tarsus*, ankle.] Within the tarsus ; *appl.* joint of reptilian limb between rows of tarsal bones.

intrathyroid (in'trăthi'roid) *a.* [L. *intra*, within ; Gk. *thyreos*, shield ; *eidos*, form.] *Appl.* cartilage joining laminae of thyroid cartilage during infancy.

intrauterine (in'trăū'tērīn) *a.* [L. *intra*, within ; *uterus*, womb.] Within the uterus.

intravaginal (in'trăvāj'ināl) *a.* [L. *intra*, within ; *vagina*, sheath.] Within vagina ; contained within a sheath, as grass branches.

intravascular (in'trăvăs'külăr) *a.* [L. *intra*, within ; *vasculum*, small vessel.] Within blood-vessels.

intraventricular (in'trăvēntrik'ulăr) *a.* [L. *intra*, within ; *ventriculus*, small cavity.] Within a ventricle ; *appl.* caudate nucleus of corpus striatum, seen within ventricle of brain.

intravesical (in'trăvēs'ikāl) *a.* [L. *intra*, within ; *vesica*, bladder.] Within the bladder.

intravitelline (in'trăvītêl'īn) *a.* [L. *intra*, within ; *vitellus*, egg-yolk.] Within the yolk of an egg.

intraxylary (in'trăzi'lări) *a.* [L. *intra*, within ; Gk. *xylon*, wood.] Within wood or xylem.

intrazonal (in'trăzō'nāl) *a.* [L. *intra*, within ; *zona*, belt.] Within a zone ; *appl.* soils characteristic of locally limited soil-forming conditions, differing from prevalent or normal soils of the region or zone.

intrinsic (in'trīn'sik) *a.* [L. *intrinsicus*, inwards.] Inward ; inherent ; *appl.* inner muscles, as of tongue, of syrinx, etc. ; *appl.* cycles, in population of a species, owing to coaction within or between species ; *appl.* rate of natural increase in a stabilised population having a balanced age distribution ; *appl.* brightness sensation due to differential retinal response to different wave-lengths. *Opp.* extrinsic.

introitus (intrō'ītūs) *n.* [L. *introitus*, entry.] An opening or orifice.

intromittent (in'trōmīt'ēt) *a.* [L. *intro*, within ; *mittere*, to send.] Adapted for inserting ; *appl.* male copulatory organs.

introrse (intrōrs') *a.* [L. *introrsus*, inwards.] Turned inwards or towards axis ; of anthers, opening on side next pistil.

introvert (in'trōvērt) *n.* [L. *intro*, within ; *vertere*, to turn.] That which is capable of involution, as

- anterior region of body of certain zooids, of certain annulates, mouth extremity of certain molluscs. (In'trōvērt') *v.* To turn, bend, or draw inwards.
- intrusive growth**,—*see* interpositional growth.
- intussusception** (In'tüssüsēp'shūn) *n.* [L. *intus*, within; *suscipere*, to receive.] Growth in surface-extent or volume by intercalation of particles among those already present. *Opp.* accretion; *cf.* apposition.
- inulase** (In'ūlās) *n.* [L. *inula*, elecampane.] A plant enzyme which hydrolyses inulin into laevulose.
- inulin** (In'ūlin) *n.* [L. *inula*, elecampane.] A carbohydrate occurring in rhizomes and roots of many plants, and forming laevulose when hydrolysed; dahlia starch; $(C_6H_{10}O_5)_x$.
- inuncate** (inūng'kāt) *a.* [L. *inuncatus*, hooked together.] Covered with barbed hairs; glochidiolate.
- invaginate** (Invāj'īnāt) *v.* [L. *in*, into; *vagina*, sheath.] To involute or draw into a sheath; *appl.* in-sinking of wall of a cavity or vessel. *a.* Introverted; enclosed in a sheath; concave.
- invagination** (Invāj'īnā'shūn) *n.* [L. *in*, into; *vagina*, sheath.] Involution; introversion; gastrula-formation by infolding of blastula wall; ingestion by temporarily transformed periplast-like ectoplasm in certain Protozoa.
- inversion** (Invēr'shūn) *n.* [L. *invertere*, to turn upside down.] Reversal in order of genes, or reversal of a chromosome segment, within the chromosome as a whole; a turning inward, inside out, or upside-down of a part.
- invertase** (Invēr'tās) *n.* [L. *invertere*, to turn into.] A plant enzyme which converts cane sugar into dextrose and laevulose; invertin; sucrose.
- invertebrate** (Invēr'tēbrāt) *a.* [L. *in*, not; *vertebra*, joint.] Back-boneless; without spinal column.
- investing bones**,—membrane bones.
- investment** (Invēst'mēnt) *n.* [L. *in*, in; *vestire*, to clothe.] Outer covering of a part, organ, animal, or plant.
- involucel** (Invöl'ūsēl) *n.* [*Dim.* of L. *involucrum*, covering.] The small bracts at base of a secondary umbel; a partial involucre.
- involucellate** (Invöl'ūsēl'āt) *a.* [*Dim.* of L. *involucrum*, covering.] Bearing involucels.
- involucellum**,—involucel.
- involucral** (In'völū'krāl) *a.* [L. *involucrum*, covering.] *Pert.* or like an involucre.
- involucrate** (In'völū'krāt) *a.* [L. *involucrum*, covering.] Bearing involucres.
- involucre** (In'völū'kēr) *n.* [L. *involucrum*, covering.] Bracts forming whorl at base of a condensed inflorescence, as of capitulum and umbel; a group of leaves surrounding antheridial and archegonial groups in bryophytes; involucre.
- involucret**,—involucel, *q.v.*
- involucrum** (In'völū'krūn) *n.* [L. *involucrum*, covering.] In Hydro-medusae, protective cup into which nematocysts can be spirally retracted; metanotum of Orthoptera; periosteal layer formed around dead portion of bone, in certain diseased conditions; an involucre, *q.v.*
- involuntary** (Invöl'üntāri) *a.* [L. *in*, not; *voluntas*, wish.] Not under control of will; *appl.* plain unstriped muscles, as of alimentary canal, and to their movements.
- involute** (In'völūt) *a.* [L. *involutus*, rolled up.] Of leaves, having the edges rolled inwards at each side; of shells, closely coiled.
- involution** (In'völū'shūn) *n.* [L. *involutus*, rolled up.] Reduction to normal of enlarged, modified, or deformed conditions; decrease in size, or structural and functional changes, as in old age; *appl.* forms that have become deformed in structure, but not to such an extent as to be incapable of recovery; a rolling inwards, as of leaves; movement of cells to interior in a certain type of gastrulation; resting, *appl.* spores, stage, etc.

iodophilic (i'ōdōfil'ik) *a.* [Gk. *ioeides*, violet-like; *philos*, loving.] Staining darkly in iodine solution; *appl.* certain cytoplasmic inclusions and vacuoles; iodophilous.

iodopsin (i'ōdōpsin) *n.* [Gk. *ioeides*, violet; *opsis*, sight.] Visual violet of retinal cones, a photo-sensitive protein-vitamin A compound.

iodothyron (i'ōdōthi'rīn) *n.* [Gk. *ioeides*, violet; *thyreos*, shield.] An iodine compound in the colloid material of thyroid gland.

iodothyroglobulin (i'ōdōthi'rōglōb'ūlin) *n.* [Gk. *ioeides*, violet; *thyreos*, shield; *L. globus*, globe.] Compound of iodothyron and nucleoprotein extractable hormone of the thyroid gland.

ipsilateral (ip'silāt'ērāl) *a.* [L. *ipse*, same; *latus*, side.] *Pert.* or situated on the same side, *opp.* contralateral.

iridal (i'ridāl) *a.* [Gk., *L. iris*, rainbow.] *Pert.* the iris; iridial.

iridal angle,—filtration angle of eye: an angular recess between cornea and anterior surface of iris.

iridocytes (ir'idōsits) *n. plu.* [Gk. *iris*, rainbow; *kytos*, hollow.] Guanin granules, bodies or plates, of which the reflecting tissue of skin of fishes and reptiles is composed; iridescent cells in integument of Sepia.

iridomotor (ir'idōmō'tōr) *a.* [L. *iris*, rainbow; *movere*, to move.] Connected with movements of iris.

iridophores,—iridocytes, *q.v.*

iris (i'ris) *n.* [L. *iris*, rainbow.] A thin, circular, contractile and vascular disc of eye between cornea and lens, and surrounding the pupil; a marking immediately encircling the pupil of an ocellus, as on wing of some Lepidoptera.

iris cells,—pigment cells surrounding cone and retinula of an ommatidium.

irradiation (ir'rādīā'shūn) *n.* [L. *in*, into; *radius*, ray.] Treatment with rays, as ultra-violet rays, X-rays, etc.; the spreading of an effect of a stimulus; spreading of an excita-

tory process; apparent enlargement of objects, due to difference in illumination.

irritability (ir'itābil'itī) *n.* [L. *irritare*, to provoke.] Power of receiving external impressions, and reacting to them, inherent in living matter.

irritant (ir'itānt) *n.* [L. *irritare*, to provoke.] An external stimulus which provokes a response.

irrorate (irrō'rāt) *a.* [L. *irrorare*, to bedew.] Covered as if by minute droplets; dotted with minute colour markings, as wings of certain butterflies.

isadelphous (isādēl'fūs) *a.* [Gk. *isos*, equal; *adelphos*, brother.] With equal number of stamens in two phalanges.

isandrous (isān'drūs) *a.* [Gk. *isos*, equal; *aner*, male.] Having similar stamens, their number equalling that of the sections of the corolla.

isantherous (isān'thērūs) *a.* [Gk. *isos*, equal; *antheros*, flowering.] Having equal anthers.

isanthous (isān'thūs) *a.* [Gk. *isos*, equal; *anthos*, flower.] Having uniform or regular flowers.

isauxisis (isōksē'sis) *n.* [Gk. *isos*, equal; *auxesis*, growth.] Growth of a part at the same rate as that of the whole; ontogenetic heterauxesis.

ischadic (is'kiād'ik), **ischial** (is'kiāl) *a.* [Gk. *ischion*, hip.] *Pert.* or in region of hip; *appl.* artery, vein, process of ischiopubic plate.

ischiocapsular (is'kiōkāp'sulār) *a.* [Gk. *ischion*, hip; *L. capsula*, little chest.] *Appl.* a ligament joining capsular ligament and hip.

ischiocavernosus (is'kiōkāv'ērno'sūs) *a.* [Gk. *ischion*, hip; *L. cavus*, hollow.] *Appl.* muscle between hip and corpora cavernosa; erector of penis, or of clitoris.

ischioflexorius (is'kiōflēksō'rīūs) *n.* [Gk. *ischion*, hip; *L. flexus*, bent.] Posterior thigh muscle in salamander, corresponding to semi-membranosus.

ischiopodite (is'kiōpōdīt) *n.* [Gk. *ischion*, hip; *pous*, foot.] Proximal joint of walking legs of certain Crustacea, or of maxillipedes.

ischiopubic (is'kiōpū'bik) *a.* [Gk. *ischion*, hip; L. *pubes*, adult.] *Appl.* a gap or fenestra between ischium and pubis; *appl.* a median cartilaginous plate with median and lateral processes, in Dipnoi.

ischiopubis (is'kiōpū'bīs) *n.* [Gk. *ischion*, hip; L. *pubis*, adult.] The ischium of pterodactyls, pubis being excluded from acetabulum; a fused ischium and pubis.

ischiorectal (is'kiōrēk'tāl) *a.* [Gk. *ischion*, hip; L. *rectus*, straight.] *Pert.* ischium and rectum; *appl.* fossa and muscles.

ischium (is'kiūm) *n.* [Gk. *ischion*, hip.] The ventral and posterior bone of each half of pelvic girdle of vertebrates except fishes; an ischiopodite.

isidia (isid'ia) *n. plu.* [Gk. *isis*, plant; *idion*, *dim.*] Coral-like soredia on surface of some lichens. *Sing.* isidium.

isidiferous (i'sidif'erūs) *a.* [Gk. *isis*, plant; L. *ferre*, to bear.] Bearing isidia; isidophorous.

isidioid (isid'oid) *a.* [Gk. *isis*, plant; *idion*, *dim.*; *eidos*, like.] Like an isidium.

isidium,—*sing.* of isidia.

island of Reil [*J. C. Reil*, German anatomist]. *Insula, q.v.*

islets of Langerhans [*P. Langerhans*, German anatomist]. Spherical or oval bodies scattered throughout the pancreas, concerned in metabolism of sugar in body; endocrine portion of pancreas.

isoagglutinin (i'sōāglōot'inin) *n.* [Gk. *isos*, equal; L. *agglutinare*, to glue to.] Fertilizin or agglutinin of eggs which reacts on sperm of same species; *cf.* heteroagglutinin.

isoagglutigen (i'sōāglōotin'ōjēn), **isoaemagglutigen** (i'sōhēm'āglōotin'ōjēn) *n.* [Gk. *isos*, equal; *haima*, blood; *genos*, birth; L. *agglutinare*, to glue to.] Substance producing agglutination of erythro-

cytes within the same blood group.

isoalleles (i'sōālēlz') *n. plu.* [Gk. *isos*, equal; *allelon*, one another.] Different alleles which produce the same phenotypic effect in the homozygote.

isobilateral (i'sōbilāt'erāl) *a.* [Gk. *isos*, equal; L. *bis*, twice; *latus*, side.] *Appl.* a form of bilateral symmetry where a structure is divisible in two planes at right angles.

isoblabe (i'sōblā'bē) *n.* [Gk. *isos*, equal; *blabe*, damage.] A line connecting points, on a map, indicating the same degree of damage, infestation, or infection by a harmful agent or pathogenic species.

isobryonic (i'sōbrion'ik) *a.* [Gk. *isos*, equal; *bryein*, to proliferate.] Developing equally, as lobes of dicotyledonous embryo; isobryous.

isocarpous (i'sōkār'pūs) *a.* [Gk. *isos*, equal; *karpōs*, fruit.] Having carpels and perianth divisions equal in number.

isocercal (i'sōsēr'kāl) *a.* [Gk. *isos*, equal; *kerkos*, tail.] With vertebral column ending in median line of caudal fin.

isochela (i'sōkē'lā) *n.* [Gk. *isos*, equal; *chele*, claw.] A chela with two parts equally developed; a two-pronged or anchor-shaped spicule in certain sponges.

isochromosome (i'sōkrō'mōsōm) *n.* [Gk. *isos*, equal; *chroma*, colour; *soma*, body.] Chromosome with identical arms united in a median centromere; metacentric derived from telocentric chromosome.

isochromous (i'sōkrō'mūs) *a.* [Gk. *isos*, equal; *chroma*, colour.] Equally tinted; uniformly coloured; isochromatic, isochroous.

isocont,—*isokont*.

isocortex (i'sōkōr'tēks) *n.* [Gk. *isos*, equal; L. *cortex*, bark.] The part of cerebral cortex made up of six layers of nerve-cells. *Opp.* allocortex.

isocytic (i'sōsit'ik) *a.* [Gk. *isos*, equal; *kytos*, hollow.] With all cells equal.

- isodactylous** (i'södäk'tilūs) *a.* [Gk. *isos*, equal; *daktylos*, finger.] Having all digits of equal size.
- isodemic** (i'södēm'ik) *a.* [Gk. *isos*, equal; *demos*, people.] With, or *pert.*, populations composed of an equal number of individuals; *appl.* lines on a map which pass through points representing equal population density.
- isodiametric** (i'södiāmēt'rik) *a.* [Gk. *isos*, equal; *dia*, through; *metron*, measure.] Having equal diameters; *appl.* cells or other structures; *appl.* rounded or polyhedral cells.
- isodont** (i'södönt) *a.* [Gk. *isos*, equal; *odontos*, tooth.] Having teeth all equal.
- isodynamic** (i'södnām'ik) *a.* [Gk. *isos*, equal; *dynamis*, power.] Of equal strength; providing the same amount of energy; *appl.* foods.
- isogametangiogamy** (i'sögāmētān'jiög'āmi) *n.* [Gk. *isos*, equal; *gametes*, spouse; *anggeion*, vessel; *gamos*, marriage.] The union of similar gametangia.
- isogamete** (i'sögāmēt') *n.* [Gk. *isos*, equal; *gametes*, spouse.] One of a pair of undifferentiated gametes.
- isogamous** (i'sög'āmūs) *a.* [Gk. *isos*, equal; *gamos*, marriage.] Having the gametes alike.
- isogamy** (i'sög'āmi) *n.* [Gk. *isos*, equal; *gamos*, marriage.] Union of similar gametes, or of similar unicells.
- isogenes** (i'sojēnz) *n. plu.* [Gk. *isos*, equal; *genos*, descent.] Lines on a map which connect points where same gene frequency is found.
- isogenetic** (i'söjēnēt'ik) *a.* [Gk. *isos*, equal; *genesis*, descent.] Arising from the same or a similar origin; of the same genotype; isogenous.
- isogenic** (i'söjēn'ik) *a.* [Gk. *isos*, equal; *genos*, race.] Homozygous.
- isogenomatic** (i'söjēnömāt'ik) *a.* [Gk. *isos*, equal; *genos*, race.] Containing similar sets of chromosomes; *appl.* nuclei; isogenomic.
- isognathous** (i'sög'nāthūs) *a.* [Gk. *isos*, equal; *gnathos*, jaw.] Having both jaws alike.
- isogonal** (i'sög'onāl) *a.* [Gk. *isos*, equal; *gonia*, angle.] Forming equal angles; *appl.* branching.
- isogonic** (i'sögön'ik) *a.* [Gk. *isos*, equal; *gonos*, offspring.] Producing similar individuals from differing stocks. [Gk. *gonia*, angle.] Isogonal.
- isogynous** (i'söj'inūs) *a.* [Gk. *isos*, equal; *gyne*, woman.] Having similar gynoecia or pistils.
- isokont** (i'sökönt) *a.* [Gk. *isos*, equal; *kontos*, punting-pole.] Having flagella or cilia of the same length. *Opp.* heterokont.
- isolate** (i'sölāt) *n.* [It. *isola*, from; L. *insula*, island.] A breeding group restricted by isolation.
- isolateral** (i'sölāt'erāl) *a.* [Gk. *isos*, equal; L. *latus*, side.] Having equal sides; *appl.* leaves with palisade tissue on both sides.
- isolation** (i'sölā'shūn) *n.* [L. *insula*, island.] Separation from others; prevention of mating between breeding groups owing to spatial, topographical, ecological, phenological, physiological, genetic, or other barriers.
- isolecithal** (i'sölēs'ithāl) *a.* [Gk. *isos*, equal; *lekithos*, yolk.] *Appl.* ova with yolk granules distributed nearly equally throughout egg substance.
- isomar**, isophane, *q.v.*
- isomastigote** (i'sömāstī'gōt) *a.* [Gk. *isos*, equal; *mastix*, whip.] Having flagella of equal length; isokont.
- isomere** (i'sömēr) *n.* [Gk. *isos*, equal; *meros*, part.] A homologous structure or part.
- isomerogamy**,—isogamy, *q.v.*
- isomerous** (i'söm'erūs) *a.* [Gk. *isos*, equal; *meros*, part.] Having equal numbers of different parts; *appl.* flowers with same number of parts in each whorl; exhibiting isomery.
- isometry** (i'söm'ētrī) *n.* [Gk. *isos*, equal; *metron*, measure.] Growth of a part at the same rate as the standard or the whole.

isomorphic (i'sômôr'fik) *a.* [Gk. *isos*, equal; *morphe*, shape.] Superficially alike; isomorphous; *appl.* alternation of diploid and haploid phases in morphologically similar generations.

isomorphism (i'sômôr'fizm) *n.* [Gk. *isos*, equal; *morphe*, shape.] Apparent similarity of individuals of different race or species.

isomyaric (i'sômiâr'ik) *a.* [Gk. *isos*, equal; *mys*, muscle.] With adductor muscles equal in size; isomyarian.

isonym (i'sônim) *n.* [Gk. *isos*, equal; *onyma*, name.] A new name, of species, etc., based upon the oldest name or basonym.

isopedin (isôp'edin) *n.* [Gk. *isopedos*, level.] Inner layer of laminated bony material in cosmoid and ganoid fish scales.

isopetalous (i'sôpêt'âlûs) *a.* [Gk. *isos*, equal; *petalon*, leaf.] Having similar petals.

isophagous (isôf'ägûs) *a.* [Gk. *isos*, equal; *phagein*, to eat.] Feeding on one or allied species; *appl.* fungi.

isophane (i'sôfân) *n.* [Gk. *isos*, equal; *phainein*, to show.] A line connecting all places within a region at which a biological phenomenon, *e.g.* flowering of a plant, occurs at the same time; isomar, phenocontour.

isophene (i'sôfên) *n.* [Gk. *isos*, equal; *phainein*, to show.] A contour line delimiting area corresponding to a given frequency of a variant form; phenocontour.

isophenous (i'sôfê'nûs) *a.* [Gk. *isos*, equal; *phainein*, to show.] Being of the same phenotype.

isophytoid (i'sôfi'toid) *a.* [Gk. *isos*, equal; *phyton*, plant; *eidōs*, form.] An 'individual' of a compound plant not differentiated from the rest.

isoplankt (i'sôplängkt) *n.* [Gk. *isos*, equal; *planktos*, wandering.] Line representing, on a map, distribution of equal amounts of plankton, or of particular plankton species.

isoploid (i'sôploid) *a.* [Gk. *isos*, equal; *aploos*, onefold.] With an even number of chromosome sets in somatic cells. *n.* An isoploid individual.

isopodous (isôp'ôdûs) *a.* [Gk. *isos*, equal; *pous*, foot.] Having the legs alike and equal.

isopogonous (i'sôpô'gônûs) *a.* [Gk. *isos*, equal; *pogon*, beard.] Of feathers, having the two webs equal and similar.

isopolyploid (i'sôpôl'iploid) *a., n.* [Gk. *isos*, equal; *polys*, many; *aploos*, onefold; *eidōs*, form.] Polyploid with an even number of chromosome sets, as tetraploid, hexaploid, octoploid, etc.

isopygous (i'sôp'igûs) *a.* [Gk. *isos*, equal; *pyge*, rump.] With pygidium and cephalon of equal size; *appl.* trilobites.

isospore (i'sôspôr) *n.* [Gk. *isos*, equal; *sporos*, seed.] An agamete produced by schizogony. *Opp.* anisospore.

isoporous (isôs'pôrûs, isôspô'rûs) *a.* [Gk. *isos*, equal; *sporos*, seed.] Having spores of one kind only; homoporous.

isostemonous (isôstêm'ônûs) *a.* [Gk. *isos*, equal; *L. stemon*, warp.] Having stamens equal in number to that of sepals or of petals.

isotelic (i'sôtêl'ik) *a.* [Gk. *isos*, equal; *telos*, end.] Exhibiting, or tending to produce, the same effect; homoplastic; *appl.* food factors that can replace each other; *pert.* isotely.

isotels (i'sôtêlz) *n. plu.* [Gk. *isos*, equal; *telos*, end.] Substances having the same physiological, *e.g.* nutritional, effect.

isotely,—homoplasty, *q.v.*

isotomy (isôt'ômi) *n.* [Gk. *isos*, equal; *temnein*, to cut.] Bifurcation repeated in a regular manner, as in crinoid brachia.

isotonic (isôtôn'ik) *a.* [Gk. *isos*, equal; *tonos*, strain.] Of equal tension; having equal osmotic pressure; iso-osmotic.

isotonicity (i'sötönis'itī) *n.* [Gk. *isos*, equal; *tonos*, tone.] Normal tension under pressure or stimulus.

isotopic (i'sötöp'ik) *a.* [Gk. *isos*, equal; *topos*, place.] *Pert.* isotopes, chemical elements having the same atomic number and identical chemical properties, but differing in atomic weight.

isotropic (i'sötörp'ik) *a.* [Gk. *isos*, equal; *tropikos*, turning.] Singly refracting in polarised light, *appl.* the light stripes of voluntary muscle fibres; *opp.* anisotropic; symmetrical around longitudinal axis; not influenced in any one direction more than another, *appl.* growth rate; without pre-determined axes, as eggs; isotropous.

isotropy (isöt'röpi) *n.* [Gk. *isos*, equal; *trepein*, to turn.] Absence of predetermined axes in eggs.

isotype (i'sötīp) *n.* [Gk. *isos*, equal; *typos*, pattern.] A specimen collected from the same plant as the holotype and at the same time; type of plant or animal common to two or more areas or regions.

isozoic (i'sözō'ik) *a.* [Gk. *isos*, equal; *zoon*, animal.] Inhabited by similar forms of animal life.

isozoid (i'sözō'oid) *n.* [Gk. *isos*, equal; *zoon*, animal; *eidōs*, like.] A zoid similar to parent stock.

isthmiate (isth'iniāt) *a.* [Gk. *isthmos*, neck.] Connected by an isthmus-like part.

isthmus (isth'mūs) *n.* Gk. *isthmos*, neck.] A narrow structure connecting two larger parts, as those of aorta, acoustic meatus, limbic lobe, prostate, thyroid, etc., or between semi-cells; junction between perikaryon and axon-base.

iter (it'er) *n.* [L. *iter*, way.] A passage or canal, as those of middle ear, brain, etc.; an aqueduct.

ivory (i'vōri) *n.* [L. *ebur*, ivory, through F. *ivoire*.] Dentine of teeth, usually that of elephant's tusks and similar structures, formed from odontoblasts.

ixocomous (iksök'ömūs) *a.* [Gk. *ixos*, mistletoe; *kome*, hair.] *Pert.*

or formed by viscous or slimy hyphae, as surface of certain fungi.

ixoderm (iks'ödērm) *n.* [Gk. *ixos*, mistletoe; *derma*, skin.] A layer of hyphae that have become viscous, covering the pileus of certain fungi; ixotrichoderm.

J

Jacob's membrane [*A. Jacob*, Irish ophthalmologist]. Layer of rods and cones of retina; bacillary layer.

Jacobson's cartilage [L. *L. Jacobson*, Danish anatomist]. Vomeranasal cartilage supporting Jacobson's organ.

Jacobson's nerve, — tympanic branch of the glossopharyngeal nerve.

Jacobson's organ,—a diverticulum of olfactory organ in many vertebrates, often developing into an epithelium-lined sac opening into mouth; vomeronasal organ.

jactitation (jăktitā'shün) *n.* [L. *jactare*, to toss.] Process of scattering seeds by censer mechanism, *q.v.*

jaculator (jăk'ulātör) *n.* [L. *jaculator*, shooter.] A placental process, usually hooked, of certain fruits.

jaculatory (jăk'ulātōri) *a.* [L. *jaculatorius*, throwing.] Darting out; capable of being emitted.

jaculatory duct,—portion of vas deferens which is capable of being protruded, in many animals.

jaculiferous (jăk'ulif'erūs) *a.* [L. *jaculum*, a dart; *ferre*, to carry.] Bearing dart-like spines.

jarovization (yăr'övizā'shün) *n.* [Russ. *varovizatsiya*, from *varovoi*, vernal.] Vernalisation, *q.v.*

jaw (jō) *n.* [Akin to *chaw*, *chew*.] A structure, of vertebrates, supported by bone or cartilage, naked or sheathed in horn, or bearing teeth or horny plates, forming part of mouth, and helping to open or shut it; a similarly placed structure in invertebrates.

jaw foot,—maxillipede of Arthropoda.

J-disc,—isotropic or I-disc, *q.v.*

jecoral (jĕk'orāl) *a.* [L. *jecur*, liver.] Of or *pert.* the liver.

jecorin (jĕk'orin) *n.* [L. *jecur*, liver.] A lecithin-like substance or phosphatide present in liver and other organs of the body.

jejenum (jĕjoon'um) *n.* [L. *jejunus*, empty.] Part of small intestine between duodenum and ileum.

jelly of Wharton [*T. Wharton*, English anatomist]. The gelatinous connective tissue surrounding the vessels of umbilical cord.

Johnston's organ [*C. Johnston*, British entomologist]. A statal or chordotonal organ in second segment of insect antenna.

joint (joint) *n.* [O.F. *joindre*, from L. *jungere*, to join.] Place of union or separation of two parts, as between bones; articulation; a node; portion between two nodes or joints.

Jordan's organ [*K. Jordan*, zoologist]. The chaetosemata.

juba (joob'ā) *n.* [L. *juba*, mane.] A mane; a loose panicle.

jubate (joob'āt) *a.* [L. *jubatus*, maned.] With mane-like growth.

jugal (joog'al) *n.* [L. *jugum*, yoke.] The malar bone, between maxilla and squamosal. *a. Pert.* a jugum.

jugate (joog'āt) *a.* [L. *jugum*, yoke.] Having pairs of leaflets; furnished with a jugum.

jugular (jūg'ulār, joog'ulār) *a.* [L. *jugulum*, collar-bone.] *Pert.* neck or throat; *appl.* veins, foramen, fossa, etc.; *appl.* nerve, the hyoidean or posterior post-trematic nerve; *appl.* ventral fish-fins beneath and in front of pectoral fins.

jugulum (joog'ulūm) *n.* [L. *jugulum*, collar-bone.] The foreneck region of a bird's breast; in insects, the jugum of wing.

jugum (joog'um) *n.* [L. *jugum*, yoke.] A pair of opposite leaflets; ridge on mericarp of umbelliferous plants; small lobe on posterior border of fore-wing of certain

moths; ridge or depression connecting two structures; union of lesser sphenoidal wings in first year after birth.

Jurassic (joorās'ik) *a.* [*Jura* mountains.] *Pert.* or *appl.* Mesozoic period between Triassic and Cretaceous.

juvenal (joo'venāl) *a.* [L. *juvenalis*, youthful.] Youthful; *appl.* plumage replacing nestling-down of first plumage.

juvenile hormone,—secreted by corpus allatum and inhibiting development of adult characters, in certain insects; neotenin.

juvenile leucocyte,—a metamyelocyte in circulation before maturation.

juxta (jūk'stā) *n.* [L. *juxta*, close to.] A ring-walled structure supporting sheath of aedeagus.

juxtaglomerular (jūk'stāglōmēr'ulār) *a.* [L. *juxta*, close to; *glomerare*, to form into a ball.] *Appl.* cells surrounding arteriole of glomerulus of kidney.

juxtamedullary (jūk'stāmēdūl'ārī) *a.* [L. *juxta*, close to; *medulla*, marrow.] Near medulla; *appl.* inner portion of zona reticularis of adrenal glands.

juxtannuclear (jūk'stānū'klēār) *a.* [L. *juxta*, close to; *nucleus*, kernel.] *Appl.* bodies: basophil deposits in cytoplasm of vitamin D-deficient parathyroid cells.

K

kaino,—see caeno-.

kako,—see caco-.

kalidium (kālid'ium) *n.* [*Dim.* of Gk. *kalia*, hut.] A form of sporocarp, or cystocarp.

kalymma (kāl'imā) *n.* [Gk. *kalymma*, covering.] Vacuolated part of outer layer of certain radiolarians.

kalymmocytes (kāl'imōsīts) *n. plu.* [Gk. *kalymma*, covering; *kytos*, cell.] In ascidians, certain follicle-cells which migrate into the egg after maturation.

karyaster (kāriās'tēr) *n.* [Gk. *karyon*, nut, nucleus; *aster*, star.] A star-shaped group of chromosomes.

karyenchyma (kāriēng'kīmā) *n.* [Gk. *karyon*, nucleus; *engchyma*, infusion.] Nuclear sap; achromatin; karyochylema.

karyoclasia (kāriōk'lāsīs) *n.* [Gk. *karyon*, nucleus; *klasis*, breaking.] Breaking down of a cell-nucleus.

karyogamy (kāriōg'amī) *n.* [Gk. *karyon*, nucleus; *gamos*, marriage.] Union and interchange of nuclear material.

karyokinesis (kāri'ōkīnē'sīs) *n.* [Gk. *karyon*, nucleus; *kinesis*, movement.] Indirect cell-division; mitosis.

karyology (kāri'ōl'ogī) *n.* [Gk. *karyon*, nucleus; *logos*, discourse.] Nuclear cytology.

karyolymph (kāri'ōlimf') *n.* [Gk. *karyon*, nucleus; *L. lymphā*, water.] Nuclear sap; karyenchyma.

karyolysis (kāri'ōl'īsīs) *n.* [Gk. *karyon*, nucleus; *lyein*, to loosen.] Supposed dissolution of the nucleus in mitosis; liquefaction of nuclear membrane. *a.* karyolytic.

karyomere (kāri'ōmēr) *n.* [Gk. *karyon*, nucleus; *meros*, part.] In mitosis, a small vesicle into which a chromosome is converted in one type of nuclear construction; karyomerite.

karyomicrosome (kāri'ōmī'krōsōm) *n.* [Gk. *karyon*, nucleus; *mikros*, small; *soma*, body.] A nuclear granule.

karyomite (kāri'ōmīt) *n.* [Gk. *karyon*, nucleus; *mitos*, thread.] A chromosome.

karyomitome (kāri'ōmītōm') *n.* [Gk. *karyon*, nucleus; *mitoma*, network.] The nuclear thread-work.

karyomitosis (kāri'ōmītō'sīs) *n.* [Gk. *karyon*, nucleus; *mitos*, thread.] Indirect nuclear division; mitosis.

karyon (kāri'ōn) *n.* [Gk. *karyon*, nucleus.] The cell-nucleus.

karyophans (kāri'ōfānz') *n. plu.* [Gk. *karyon*, nucleus; *phainein*, to appear.] Microsomes or nucleus-like granules surrounded by an ovoid

matrix, which form the spirone me and axoneme in stalk of infusoria.

karyophore (kāri'ōfōr) *n.* [Gk. *karyon*, nucleus; *pherein*, to bear.] System of ectoplasmic fibrils or membranes for mooring the nucleus, in certain ciliates.

karyoplasm (kāri'ōplāzm) *n.* [Gk. *karyon*, nucleus; *plasma*, mould.] Nucleoplasm, the nuclear substance; *cf.* cytoplasm.

karyorhexis (kāri'ōrēk'sīs) *n.* [Gk. *karyon*, nucleus; *rhexis*, breaking.] Fragmentation of the cell nucleus; karyoschisis.

karyosome (kāri'ōsōm) *n.* [Gk. *karyon*, nucleus; *soma*, body.] A nucleolus of the 'net-knot' type; a chromosome; a special aggregation of chromatin in resting nucleus; the cell-nucleus itself; *cf.* plasmosome.

karyosphere (kāri'ōsfēr) *n.* [Gk. *karyon* nucleus; *sphaira*, globe.] The large nucleolus from which arise all or most of the chromosomes of Protista.

karyota (kāri'ō'tā) *n. plu.* [Gk. *karyon*, nucleus.] Nucleated cells.

karyotheca (kāri'ōthē'kā) *n.* [Gk. *karyon*, nucleus; *theke*, covering.] The nuclear membrane.

karyotin (kāri'ōtin) *n.* [Gk. *karyon*, nucleus.] Chromatin; nuclear substance.

karyotype (kāri'ōtip) *n.* [Gk. *karyon*, nucleus; *typos*, pattern.] Group of individuals with the same chromosome number and similar linear arrangement of genes in homologous chromosomes; chromosome complement of such a group.

kata,—also cata-

katabolism (kā'tāb'ōlizm) *n.* [Gk. *kata*, down; *bole*, throw.] The destructive chemical processes in living organisms, *opp.* anabolism.

katabolite (kā'tāb'ōlit) *n.* [Gk. *kata*, down; *bole*, throw.] Any product of katabolism, *e.g.* urea.

katagenesis (kā'tājēn'ēsīs) *n.* [Gk. *kata*, down; *genesis*, descent.] Retrogressive evolution.

katakinetic (kāt'ākinēt'ik) *a.* [Gk. *kata*, down; *kinein*, to move.] *Appl.* process leading to discharge of energy; *cf.* anakinetic.

katakinetomeres (kāt'ākinēt'ōmērz) *n. plu.* [Gk. *kata*, down; *kinein*, to move; *meros*, part.] Unreactive, stable, atoms or molecules.

kataphase (kāt'āfāz) *n.* [Gk. *kata*, down; *phasis*, appearance.] The stages of mitosis from formation of chromosomes to division of cell; *cf.* anaphase.

kataphoresis (kāt'āfōrē'sis) *n.* [Gk. *kata*, down; *pherein*, to carry.] Transfer of fluids through a membrane from anode to kathode; electrical osmosis.

kataphoric (kāt'āfōr'ik) *a.* [Gk. *kata*, down; *pherein*, to carry.] *Appl.* passive action, the result of lethargy.

kataplexy (kāt'āplēksi) *n.* [Gk. *kata*, down; *plessein*, to strike.] Condition of an animal feigning death; maintenance of a postural reflex induced by restraint or shock; cataplexis; *cf.* catalepsis.

katastate (kāt'āstāt, kātās'tāt) *n.* [Gk. *kata*, down; *stasis*, state.] Any product of katabolic activity of protoplasm; katabolite.

katatrepsis (kāt'ātrēp'sis) *n.* [Gk. *kata*, down; *trepein*, to turn.] Stage of decreasing movement in blastokinesis.

katatropic (kāt'ātrōp'ik) *a.* [Gk. *kata*, down; *tropikos*, turning.] Turning downwards.

katharobic (kāthārōb'ik) *a.* [Gk. *katharos*, pure; *bios*, life.] Living in clean waters, *appl.* Protista. *Opp.* saprobic.

kathodic (kāthōd'ik) *a.* [Gk. *kathodos*, descent.] Not arising in conformity with genetic spiral; *appl.* leaves.

kation (kāt'ion, kāti'on) *n.* [Gk. *kata*, down; *ienai*, to go.] A positively charged ion which moves towards kathode or negative pole; *opp.* anion.

Keber's organ [*G. A. F. Keber*, German zoologist]. Pericardial glands in lamellibranchs.

keel (kēl) *n.* [A.S. *ceol*, ship.] The carina on breast-bone of flying birds; boat-shaped structure formed by two anterior petals of Leguminosae; ridge on blade or on other parts of grasses.

kenanthy (kēnān'thi) *n.* [Gk. *kenos*, empty; *anthos*, flower.] Non-development of stamens and pistils of a flower.

kenenchyma (kēnēng'kimā) *n.* [Gk. *kenos*, empty; *engchyma*, infusion.] A tissue devoid of its living contents, as cork.

keph-,—see ceph-.

keraphyllous (kēr'āfil'ūs) *a.* [Gk. *keras*, horn; *phyllon*, leaf.] *Appl.* layer of a hoof between horny and sensitive parts.

keratin (kēr'ātin) *n.* [Gk. *keras*, horn.] A scleroprotein forming the basis of epidermal structures such as horns, nails, hairs.

keratinisation (kēr'ātinizā'shūn) *n.* [Gk. *keras*, horn.] State of becoming horny; *appl.* cells of epiderm developing in a horny material.

keratinolytic (kēr'ātinōlit'ik) *a.* [Gk. *keras*, horn; *lyein*, to dissolve.] Hydrolysing keratin; *appl.* enzymes, as produced by dermatophytes.

keratinophilic (kēr'ātinōfil'ik) *a.* [Gk. *keras*, horn; *philos*, loving.] Growing on a horny or keratinised substrate; *appl.* certain fungi.

keratogenous (kērātōj'ēnūs) *a.* [Gk. *keras*, horn; *-genes*, producing.] Horn-producing.

keratohyalin (kēr'ātōhī'ālin) *n.* [Gk. *keras*, horn; *hyalos*, glass.] Substance contained in stratum lucidum of skin.

keratoid (kēr'ātoid) *a.* [Gk. *keras*, horn; *eidos*, form.] Horny; resembling horn.

keratose (kēr'ātōs) *a.* [Gk. *keras*, horn.] Having horny fibres in skeleton, as certain sponges.

kernel (kēr'nēl) *n.* [A.S. *cyrnel*, small grain.] The inner part of a seed containing the embryo.

ketogenic hormone,—a preputitary principle which influences fat metabolism.

key-fruit,—winged achenes hanging in clusters, as of *Acer* and *Fraxinus*.

key gene,—oligogene, *q.v.*

kidney (kid'nē) *n.* [A.S. *cwith*, womb; *neere*, kidney.] Nephros; paired organ which elaborates and excretes urine.

kinaesthesia (kin'ēsthē'sis) *n.* [Gk. *kinein*, to move; *aisthesis*, perception.] Perception of movement due to stimulation of muscles, tendons, and joints; proprioception.

kinaesthetic (kin'ēsthēt'ik) *a.* [Gk. *kinein*, to move; *aisthesis*, perception.] *Pert.* sense of movement or muscular effort; *appl.* sense, area.

kinase (ki'nās) *n.* [Gk. *kinein*, to move.] A substance which transforms zymogens to enzymes.

kinesiodic (kin'ēsiod'ik) *a.* [Gk. *kinesis*, movement; *hodos*, way.] *Pert.* motor nerve paths; *cf.* kinesodic.

kinesis (kinē'sis) *n.* [Gk. *kinesis*, movement.] Random movement; locomotor reactions depending on intensity of stimulus; variation in linear or angular velocity.

kinesodic (kin'ēsöd'ik) *a.* [Gk. *kinesis*, movement; *hodos*, way.] Conveying motor impulses.

kinetia,—*plu.* of kinetium.

kinetic (kinēt'ik) *a.* [Gk. *kinein*, to move.] Active; *appl.* function of movement, *opp.* static; energy employed in producing or changing motion; *appl.* division centre in cell-division.

kinetium (kinē'shīūm, -tīūm) *n.* [Gk. *kinein*, to move.] A row of kinetosomes with a kinetodesma; kinety.

kinetoblast (kinē'töbläst) *n.* [Gk. *kinein*, to move; *blastos*, bud.] Outer ciliated investment of aquatic larvae with special locomotor properties.

kinetochore (kinē'tökör) *n.* [Gk. *kinein*, to move; *choros*, place.] Spindle-attachment or -insertion region; centromere.

kinetodesma (kinē'tödēs'mä) *n.* [Gk. *kinein*, to move; *desma*, bond.] A fibril alongside a row of kinetosomes in Ciliata.

kinetogenesis (kinē'töjēn'ēsis) *n.* [Gk. *kinein*, to move; *genesis*, descent.] The evolution theory that animal structures have been produced by animal movements.

kinetomeres (kinē'tömērz) *n. plu.* [Gk. *kinein*, to move; *meros*, part.] Molecules or atoms, reactive or stable, ana- and kata-kinetomeres.

kinetonema (kinē'tönē'mä) *n.* [Gk. *kinein*, to move; *nema*, thread.] Part of the chromonema associated with spindle-attachment region or centromere.

kinetonucleus (kinē'tönū'klēūs) *n.* [Gk. *kinein*, to move; L. *nucleus*, kernel.] The secondary nucleus, kinetoplast, or parabasal body, in forms such as trypanosomes, in close connection with flagellum and undulating membrane; *cf.* tropho-nucleus.

kinetoplasm (kinē'töplāzm) *n.* [Gk. *kinein*, to move; *plasma*, something formed.] An iron-containing nucleo-protein forming a source of energy to Nissl granules.

kinetoplast (kinē'töpläst) *n.* [Gk. *kinein*, to move; *plastos*, formed.] Composite body formed by union of parabasal body with blepharoplast in some Mastigophora.

kinetosome (kinē'tösöm) *n.* [Gk. *kinein*, to move; *soma*, body.] One of a group of granules occupying the polar plate region in moss sporogenesis; a self-duplicating granule at the base of a cilium in Ciliata.

kinetospore (kinē'töspör) *n.* [Gk. *kinein*, to move; *sporas*, seed.] A zoospore in its physiological aspect.

kinety,—kinetium.

kinoplasm (ki'nöplāzm) *n.* [Gk. *kinein*, to move; *plasma*, mould.] The substance of attraction-sphere, astral rays, and spindle-fibres; archiplasm; ergastoplasm.

kinoplasmosomes (ki'nöplāz'mō-sōmz) *n. plu.* [Gk. *kinein*, to move; *plasma*, form; *soma*, body.] Phragmoplast fibres seen at periphery of cell plate.

klado,—clado-, *q.v.*

klasma-plates (klāz'mā-plāts) *n. plu.*

[Gk. *klasma*, fragment; L. *platus*, flat.] Small parts of compound ambulacral plates separated by growth pressure, in echinoids.

kleisto-,—also *cleisto*-, *q.v.*

kleistogamous (klīstōg'āmūs) *a.* [Gk. *kleistos*, closed; *gamos*, marriage.]

Fertilised in closed flowers.

kleronomous (klērōn'ōmūs) *a.* [Gk. *kleronomos*, heir.] Inherited; *appl.* paths in nervous system.

klinokinesis (klī'nōkinē'sis) *n.* [Gk. *klinein*, to slope; *kinesis*, movement.] Change in rate of change of direction, or angular velocity, due to intensity of stimulation; *cf.* *kinesis*.

klon-,—clone. *q.v.*

knee (nē) *n.* [A.S. *cneow*, knee.] Genu; joint between femur and tibia; root-process of certain swamp-inhabiting trees.

knephoplankton (nēf'ōplāngk'tōn) *n.* [Gk. *knephas*, twilight; *planktos*, wandering.] Plankton living at depths between thirty and five hundred metres; *cf.* *phaoplankton*, *skotoplankton*.

knot (nōt) *n.* [A.S. *cnotta*, knot.] In wood, base of branch surrounded by new layers of wood and hardened by pressure; in nuclear meshwork, small particles of chromatin where meshes cross.

koino-,—coeno-, *q.v.*

Kölliker's canal [*R. A. von Kölliker*, Swiss zoologist]. A canal leading from otocyst towards exterior, as in certain Cephalopoda.

kolyone (kō'līōn) *n.* [Gk. *kolyein*, to hinder.] Substance elaborated in, and conveyed from, a tissue or organ, which lessens or inhibits function of other tissues.

kolytic (kōlī'tik) *a.* [Gk. *kolytikos*, hindering.] Inhibiting; inhibitory.

komma (kōm'ā) *n.* [Gk. *komma*, clause.] Sarcomere; incommma.

koniocortex (kōn'tōkōr'tēks) *n.* [Gk. *konis*, dust; L. *cortex*, bark.] Granular part of cortex, characteristic of sensory areas of brain.

Kovalevsky's canal [*P. Kovalevskii*,

Russian embryologist]. The neurenteric canal.

Krause's end-bulbs,—see end-bulbs.

Krause's glands [*K. F. T. Krause*, German anatomist]. Accessory lacrimal glands with ducts opening into fornix of conjunctiva.

Krause's membrane [*W. J. F. Krause*, German anatomist]. The single or double row of dots in the light transverse band of striated muscle; telophragma, Z-disc.

Kupffer cells [*K. W. von Kupffer*, German anatomist]. Stellate macrophages of liver sinuses.

kyano-,—cyano-, *q.v.*

kyogenic (kiōjēn'ik) *a.* [Gk. *kyesis*, pregnancy; *genos*, descent.] *Appl.* prepituitary hormone stimulating secretion of progesterin by corpora lutea.

kyto-,—cyto-, *q.v.*

L

labella (lābēl'ā) *n.* [L. *labellum*, small lip.] Paraglossa of insects; *plu.* of labellum.

labellate (lābēl'āt) *a.* [L. *labellum*, small lip.] Furnished with labella or small lips.

labelloid (lābēl'oid) *a.* [L. *labellum*, small lip; Gk. *eidos*, form.] Like a labellum.

labellum (lābēl'ūm) *n.* [L. *labellum*, small lip.] The lower petal, morphologically posterior, of an orchid; two fused lateral staminodes, as in flower of Zingiberaceae; small lobe beneath labrum, or labial palp, in insects; proboscis lobe.

labia (lā'biā) *n. plu.* [L. *labium*, lip.] Lips; lip-like structures.

labia cerebri,—margins of cerebral hemispheres overlapping corpus callosum.

labia majora,—outer lips of vulva.

labia minora,—inner lips of vulva.

labial (lā'biāl) *a.* [L. *labium*, lip.] *Pert.* or resembling a lip, or labium.

labial palp,—lobe-like structure near mouth of molluscs; jointed appendage on labium of insects.

labiate (lā'biāt) *a.* [L. *labium*, lip.] Lip-like, possessing lips or thickened margins; having limb of calyx or corolla so divided that one portion overlaps the other.

labiatiflorous (lā'biātiflō'rūs) *a.* [L. *labium*, lip; *flos*, flower.] Having the corolla divided into two lip-like portions.

labidophorous (lāb'idōf'ōrūs) *a.* [Gk. *labis*, forceps; *pherein*, to carry.] Possessing pincer-like organs.

labiella (lā'biēl'ā) *n.* [L. *labium*, lip.] A mouth-part of Myriopoda.

labile (lā'bīl, lāb'il) *a.* [L. *labilis*, apt to slip.] Readily undergoing change; unstable; *appl.* genes that are constantly mutating.

labiodental (lā'bīōdēn'tāl) *a.* [L. *labium*, lip; *dens*, tooth.] *Pert.* lip and teeth; *appl.* an embryonic lamina; *appl.* labial surface of tooth.

labiosternite (lā'bīōstēr'nīt) *n.* [L. *labium*, lip; *sternum*, breast-bone.] A median area between palpigera of insect head.

labiostipes (lā'bīōstī'pēz) *n.* [L. *labium*, lip; *stipes*, stalk.] A portion of basal part of insect labium.

labipalp (lā'bīpālp) *n.* [L. *labium*, lip; *palpare*, to feel.] Labipalpus, labial palp of insects.

labium (lā'bīūm) *n.* [L. *labium*, lip.] A lip, or lip-shaped structure; the fused second maxillae of insects. *Plu.* labia.

labral (lā'brāl) *a.* [L. *labrum*, lip.] *Pert.* a labrum.

labrocyte (lāb'rōsīt) *n.* [Gk. *labros*, greedy; *kytos*, hollow.] A mast cell.

labrum (lā'brūm) *n.* [L. *labrum*, lip.] Anterior lip of certain arthropods; hypostoma of trilobites; outer margin of mouth of gastropod shell; ring of fibrocartilage, ambon, *q.v.*

labyrinth (lāb'īrīnth) *n.* [L. *labyrinthus*, labyrinth.] The complex internal ear, bony or membranous;

lateral mass of air-cells of ethmoidal bone; portions of kidney cortex with uriniferous tubules; tracheal tympanum.

labyrinthodont (lāb'īrīn'thōdōnt) *a.* [Gk. *labyrinthos*, labyrinth; *odous*, tooth.] Having teeth with great complexity of dentine arrangement.

lac (lāk) *n.* [Persian, *lak*, lacquer.] A resinous secretion of lac glands of certain Coccidae, composition depending on the food plant.

laccate (lāk'āt) *a.* [It. *lacca*, varnish.] Appearing as if varnished.

lacerated (lās'ērātēd) *a.* [L. *lacerare*, to tear.] Having margin or apex deeply cut into irregular lobes.

lacertiform (lāsēr'tifōrm) *a.* [L. *lacerta*, lizard; *forma*, shape.] Having the shape of a lizard.

lacertus (lāsēr'tūs) *n.* [L. *lacertus*, arm-muscle.] *Lacertus fibrosus*, aponeurosis of tendon of biceps muscle of the arm; bicipital fascia.

lachry,—lacri-.

lacinia (lāsīn'īā) *n.* [L. *lacinia*, flap.] Segment of an incised leaf; slender projection from margin of a thallus; extension of posterior margin of proglottis over anterior part of following proglottis; inner division of endopodite or stipes of maxilla of insects; fimbria, *q.v.*

laciniate (lāsīn'īāt) *a.* [L. *lacinia*, flap.] Irregularly incised, as petals; fringed; *appl.* a ligament of the ankle, the internal annular ligament.

laciniform (lāsīn'īfōrm) *a.* [L. *lacinia*, flap; *forma*, shape.] Shaped like lacinia; fringe-like.

lacinula (lāsīn'ūlā) *n.* [L. *lacinia*, *dim.*, flap.] Small lacinia; inflexed sharp point of petal.

lacinulate (lāsīn'ūlāt) *a.* [L. *lacinia*, *dim.*, flap.] Having lacinulae.

lacrimal (lāk'rīmāl) *a.* [L. *lacrima*, tear.] Secreting or *pert.* tears; *pert.* or situated near lacrimal organ; *appl.* artery, bone, duct, glands, nerve, papillae, sac; also lachrymal.

- lacrimiform** (lāk'rīmifōrm) *a.* [L. *lacrima*, tear; *forma*, shape.] Tear-shaped; lacrimaeform, laciroid, lachrimiform, lachrymiform, dacryoid; *appl.* spores, etc.
- lacrimonasal** (lāk'rīmōnā'zāl) *a.* [L. *lacrima*, tear; *nasus*, nose.] *Pert.* lacrimal and nasal bones or duct.
- lacrimose** (lāk'rīmōs) *a.* [L. *lacrimosus*, tearful.] Bearing tear-shaped appendages, as gills of certain fungi.
- lactalbumin** (lāk'tālbū'mīn) *n.* [L. *lac*, milk; *albumen*, egg-white.] An albumin found in milk.
- lactase** (lāk'tās) *n.* [L. *lac*, milk.] An intestinal enzyme converting lactose into glucose and galactose; also found in certain plants.
- lactation** (lāktā'shūn) *n.* [L. *lac*, milk.] Secretion of milk in mammary glands; period during which milk is secreted.
- lacteals** (lāk'tēālz) *n. plu.* [L. *lac*, milk.] Chyliferous or lymphatic vessels of small intestine; ducts which carry latex.
- lactescent** (lāktēs'ēnt) *a.* [L. *lactescere*, to turn to milk.] Producing milk; yielding latex.
- lactic** (lāk'tik) *a.* [L. *lac*, milk.] *Pert.* milk; *appl.* bacilli, acid.
- lactifer**,—laticifer, *q.v.*
- lactiferous** (lāktif'ērūs) *a.* [L. *lac*, milk; *ferre*, to carry.] Forming or carrying milk; carrying latex.
- lactochrome** (lāk'tōkrōm) *n.* [L. *lac*, milk; Gk. *chroma*, colour.] A nitrogenous colouring matter in milk; lactoflavin, *q.v.*
- lactoflavin** (lāk'tōflā'vīn) *n.* [L. *lac*, milk; *flavus*, yellow.] Vitamin B₂; riboflavin, *q.v.*; C₁₇H₂₀O₆N₄.
- lactogenic** (lāk'tōjēn'ik) *a.* [L. *lac*, milk; Gk. *-genes*, producing.] *Pert.*, or stimulating, secretion of milk; *appl.* a prepituitary hormone inducing secretion of milk in mammals and of crop milk in the pigeon; *appl.* interval between parturition and ovulation, or between parturition and menstruation.
- lactoglobulin** (lāk'tōglōb'ūlīn) *n.* [L. *lac*, milk; *globulus*, *dim.* of *globus*, globe.] The specific protein of milk, insoluble in water; lactalbumin.
- lactoproteid** (lāk'tōprō'tēid) *n.* [L. *lac*, milk; Gk. *proteion*, first; *eidos*, form.] Any milk proteid.
- lactose** (lāk'tōs) *n.* [L. *lac*, milk.] Milk-sugar, C₁₂H₂₂O₁₁.
- lacuna** (lākū'nā) *n.* [L. *lacuna*, cavity.] A space between cells; sinus; urethral follicle; cavity in bone; small cavity or depression on surface in lichens; a leaf gap. *Plu.* lacunae.
- lacunar**,—having, resembling, or *pert.* lacunae.
- lacunate** (lākū'nāt) *a.* [L. *lacuna*, cavity.] Lacunar; *pert.* lacunae; *appl.* collenchyma, with cell-walls thickened where bordering intercellular spaces.
- lacunose** (lākū'nōs) *a.* [L. *lacuna*, cavity.] Having many cavities; pitted.
- lacunosorugose** (lākū'nōsōroo'gōs) *a.* [L. *lacuna*, cavity; *rugosus*, wrinkled.] Having deep furrows or pits, as some seeds and fruits.
- lacunula** (lākū'nūla) *n.* [L. *Dim.* of *lacuna*, a hollow.] A minute cavity or lacuna; a minute air space, as in grey hair.
- lacus lacrimalis**,—the triangular space between eyelids which contains lacrimal caruncle and receives tears from orifices of the lacrimal ducts.
- lacustrine** (lākūs'trīn) *a.* [L. *lacus*, lake.] *Pert.*, or living in or beside, lakes.
- laetropic** (lē'ōtrōp'ik) *a.* [Gk. *laios*, left; *trope*, turning.] Inclined, turned, or coiled to the left; laetropous, sinistral.
- laevulose** (lē'vūlōs) *n.* [L. *laevus*, left.] Fruit-sugar; fructose, C₆H₁₂O₆.
- lagna** (lāgē'nā, lājē'nā) *n.* [L. *lagna*, flask.] Apical portion of the cochlear duct or scala media.
- lageniform** (lāgē'nifōrm, lājē'nifōrm) *a.* [L. *lagna*, flask; *forma*, shape.] Shaped like a flask.

lagoena,—lagena.

lagopodous (lägöp'ödüs) *a.* [Gk. *lagos*, hare; *pous*, foot.] Possessing hairy or feathery feet.

Lamarckian (lämärk'iän) *a.* [*J.-B. de Lamarck*, French biologist]. Of or *pert.* theories put forward by Lamarck.

Lamarckism (lämärk'izm) *n.* The evolution theory of Lamarck, embodying the principle that acquired characteristics are transmissible.

lambda (läm'dä) *n.* [Gk. Λ , lambda.] The junction of lambdoid and sagittal sutures.

lambdoid (läm'doid) *a.* [Gk. Λ , lambda; *eidos*, form.] Λ -shaped; *appl.* the cranial suture joining occipital and parietal bones.

lamella (lämél'ä) *n.* [L. *lamella*, small plate.] Any thin plate- or scale-like structure; the gill of an agaric.

lamellar (lämél'är), **lamellate** (läm'elät) *a.* [L. *lamella*, small plate.] Composed of, or possessing thin plates.

lamellated corpuscles,—Pacinian corpuscles, *q.v.*

lamellibranchiate (lämél'ibräng'kiät) *a.* [L. *lamella*, small plate; *branchiae*, gills.] Having plate-like gills on each side; with bilaterally compressed symmetrical body, like a bivalve.

lamellicorn (lämél'ikôrn) *a.* [L. *lamella*, small plate; *cornu*, horn.] Having antennal joints expanded into flattened plates.

lamelliferous (läm'elif'erüs) *a.* [L. *lamella*, small plate; *ferre*, to carry.] Having small plates or scales.

lamelliform (lämél'iförm) *a.* [L. *lamella*, small plate; *forma*, shape.] Plate-like.

lamellirostral (lämél'irös'träł) *a.* [L. *lamella*, small plate; *rostrum*, beak.] Having inner edges of bill bearing lamella-like ridges.

lamelloid,—lamelliform.

lamina (läm'inä) *n.* [L. *lamina*, plate.] A thin layer, or scale; blade of leaf; one of thin plate-like expansions of sensitive tissue

which fit into grooves on inside of horse-hoof.

lamina basalis,—a thin membrane on inner surface of lamina choriocapillaris.

lamina choriocapillaris,—capillary plexus constituting inner layer of choroid.

lamina cribrosa,—cribriform plate, *q.v.*; membranous portion of sclera at site of attachment of optic nerve and with perforations for axons of ganglion cells of retina.

lamina fusca,—inner layer of sclera, adjoining lamina suprachoroidea.

lamina papyracea,—plate or os planum of ethmoidal bone, forming part of medial wall of orbit.

lamina perpendicularis,—median process of mesethmoid or ethmoid forming proximal or bony part of nasal septum.

lamina suprachoroidea,—delicate tissue or membrane between choroid and sclera.

lamina terminalis,—thin layer of grey matter forming anterior boundary of third ventricle of brain.

lamina vasculosa,—outer layer of choroid beneath suprachoroid membrane.

lamina vitrea,—lamina basalis.

laminar (läm'inär), **laminiform** (läm'iniförm) *a.* [L. *lamina*, plate; *forma*, shape.] Consisting of plates or thin layers; laminous.

laminarian (lämInä'riän) *a.* [*Laminaria*, a genus of brown seaweeds.] *Appl.* zone between low water to about fifteen fathoms.

lamination (läm'inä'shün) *n.* [L. *lamina*, plate.] The formation of thin plates or layers; arrangement in layers, as nerve cells of cerebral cortex.

laminiplantar (läm'iniplän'tär) *a.* [L. *lamina*, plate; *planta*, sole of foot.] Having scales of metatarsus meeting behind in a smooth ridge.

lanate (lä'nät) *a.* [L. *lana*, wool.] Woolly; covered with short hair-like processes giving woolly appearance to surface.

- lance-linear** (läns'-lin'ëär) *a.* [L. *lancea*, lance; *linea*, line.] Between lanceolate and linear in form.
- lance-oblong** (läns'-öb'löng) *a.* [L. *lancea*, lance; *oblongus*, oblong.] Oblong with tapering ends.
- lanceolate** (läns'-söölät) *a.* [L. *lan- ceola*, little lance.] Slightly broad, or tapering, at base and tapering to point; lance-shaped.
- lance-oval** (läns'-ö'vål), **lance-ovate** (läns'-ö'vât) *a.* [L. *lancea*, lance; *ovalis*, oval.] Having a shape intermediate between lanceolate and oval.
- lancet** (läns'sët) *n.* [F. *lancette*, from L. *lancea*, lance.] One of the paired parts, ventral to stylet, of sting in Hymenoptera.
- lancet - plates**, — plates supporting water-vascular vessels of Blastoidea.
- Landolt's fibre** [E. *Landolt*, French ophthalmologist]. Free end of outer processes of cone-bipolar cells in inner nuclear layer of retina.
- Langerhans' cell** [P. *Langerhans*, German anatomist]. Melanoblast.
- Langerhans, follicles of**,—see follicles.
- Langerhans, islets of**,—see islets.
- Langhans' cells** [T. *Langhans*, German histologist]. Giant cells of inner layer of trophoblast or layer of Langhans.
- languet, languette** (länggët') *n.* [F. *languette*, small tongue.] A process on branchial sac of ascidians.
- laniary** (läns'iärt) *a.* [L. *laniare*, to tear to pieces.] Term *appl.* to canine tooth.
- lantern**,—see Aristotle's lantern.
- lanthanin** (länthän'in) *n.* [Gk. *lanthanein*, to conceal.] Oxychromatin; linin, *q.v.*
- lanuginous** (länu'jinūs) *a.* [L. *lanugo*, down.] Covered with down; lanuginose.
- lanugo** (länu'gō) *n.* [L. *lanugo*, down.] The downy covering on a foetus, begins to be shed before birth.
- lapidicolous** (läp'idik'ölūs) *a.* [L. *lapis*, stone; *colere*, to cultivate.] *Appl.* animals that live under stones.
- lapillus** (läpil'ūs) *n.* [L. *lapillus*, pebble.] A small otolith in utriculus of teleosts.
- lappaceous** (läpäs'shūs) *a.* [L. *lappa*, bur.] Like a bur; prickly.
- lappet** (läp'ët) *n.* [A.S. *lacppa*, loose hanging part.] One of paired lobes extending downwards from distal end of stomodaeum in jelly-fish; lobe of a sea-anemone gullet; wattle of a bird.
- larmier** (lä'rmyër) *n.* [F. *larme*, tear.] Tear pit; saccus lacrimalis.
- larva** (lä'rvä) *n.* [L. *larva*, ghost.] An embryo which becomes self-sustaining and independent before it has assumed the characteristic features of its parents.
- larval** (lä'rväl) *a.* [L. *larva*, ghost.] *Pert.* a larva; in the larval stage.
- larviform** (lä'r'viförm) *a.* [L. *larva*, ghost; *forma*, shape.] Shaped like a larva.
- larviparous** (lärvip'ärūs) *a.* [L. *larva*, ghost; *parere*, to produce.] Producing live larvae.
- larvivoracious** (lärviv'örūs) *a.* [L. *larva*, ghost; *vorare*, to devour.] Larva-eating.
- larvule** (lä'r'vül) *n.* [L. *larvula*, small larva.] Young larva.
- laryngeal** (lärin'jēäl) *a.* [Gk. *laryngx*, upper part of windpipe.] *Pert.* or near the larynx; *appl.* artery, vein, nerve, etc.
- laryngeal prominence**,—subcutaneous projection of the thyroid cartilage in front of the throat; Adam's-apple, pomum Adami.
- laryngopharynx** (läring'göfär'ingks) *n.* [Gk. *laryngx*, larynx; *pharyngx*, gullet.] Part of pharynx between soft palate and oesophagus.
- laryngotracheal** (läring'göträ'kēäl) *a.* [Gk. *laryngx*, windpipe; L. *trachea*, trachea.] *Pert.* larynx and trachea; *appl.* embryonic groove and tube.
- larynx** (lä'r'ingks) *n.* [Gk. *laryngx*, larynx.] The organ of voice in most vertebrates, except birds.
- lasso** (läs'ō) *n.* [Sp. *lazo*, noose.] A contractile filamentous noose used in trapping nematodes by certain soil fungi.

lasso-cells,—filamented hemispherical adhesive cells, investing tentacles of Ctenophora; colloblasts.

lata-type,—a mutant with one or more supernumerary chromosomes as compared with its parent (from *Oenothera lata*).

latebra (lät'ëbrä) *n.* [L. *latebra*, hiding-place.] The bulb or flask-shaped mass of white yolk in eggs.

latebricole (lät'ëbriköl) *a.* [L. *latebra*, hiding-place; *colere*, to inhabit.] Inhabiting holes.

latent (lät'tënt) *a.* [L. *latens*, hidden.] Lying dormant but capable of development under favourable circumstances; *appl.* buds, resting stages, characters.

latent bodies,—the resting stage of certain Haemoflagellata.

latent period,—the time interval between completion of presentation of a stimulus and the beginning of a reaction; reaction time.

lateral (lät'ëräl) *a.* [L. *latus*, side.] *Pert.* or situated at a side, or at a side of an axis.

lateral chain theory,—see side-chain.

lateral line,—longitudinal line at each side of body of fishes, marking position of sensory cells.

lateral mesenteries,—the mesenteries of Zoantharia, excluding directive or dorsal and ventral pairs.

lateralial (lät'ëräl'lä) *n. plu.* [L. *latus*, side.] The lateral plates of Cirripedia.

laterigrade (lät'ërigräd) *a.* [L. *latus*, side; *gradus*, step.] Walking sideways, as a crab.

laterinerved (lät'ërinërvd') *a.* [L. *latus*, side; *nervus*, sinew.] With lateral veins.

laterite (lät'ërit) *n.* [L. *later*, brick.] *Appl.* tropical red soils containing alumina and iron oxides and little silica owing to leaching under hot, moist conditions.

laterocranium (lät'ërokrä'nium) *n.* [L. *latus*, side; *cranium*, skull.] Area of insect head comprising genae and postgenae.

latero-sensory (lät'ërosën'söri) *a.* [L. *latus*, side; *sensus*, sense.] *Appl.*

system of lateral sense-organs in fishes, or lateral line system.

laterosternites (lät'ëröstër'nits) *n. plu.* [L. *latus*, side; *sternum*, breast-bone.] Sclerites at side of eusternum, as in Dermaptera and Isoptera.

laterotergites (lät'ërötër'jits) *n. plu.* [L. *latus*, side; *tergum*, back.] Small sclerites adjoining tergum of abdominal segments in some crustaceans and insects.

latex (lät'tëks) *n.* [L. *latex*, a liquid.] A milky, or clear, sometimes coloured, juice or emulsion of diverse composition found in some plants, as in spurge, rubber trees, certain agarics, etc.

laticifer (lätis'ifër) *n.* [L. *latex*, a liquid; *ferre*, to carry.] Any latex-containing cell, series of cells, or duct.

laticiferous (lät'isif'ërüs) *a.* [L. *latex*, a liquid; *ferre*, to carry.] Conveying latex; *appl.* cells, tissue, vessels.

latiplantar (lät'iplän'tär) *a.* [L. *latus*, broad; *planta*, sole of foot.] Having hinder tarsal surface rounded.

latirostral (lät'irös'träl) *a.* [L. *latus*, broad; *rostrum*, beak.] Broad-beaked.

latisepate (lät'isëp'tät) *a.* [L. *latus*, broad; *septum*, septum.] Having a broad septum in the silicula.

latitudinal furrow,—one running round a segmenting egg above and parallel to the equatorial.

Laurer-Stieda canal,—a canal leading from junction of oviduct and vitelline duct to opening on dorsal surface in trematodes.

laurinoxylon (lör'inözi'lön) *n.* [L. *laurus*, laurel; Gk. *xylon*, wood.] Any fossil wood; lithoxyle.

law of acceleration,—the generalisation that organs of greater importance develop more quickly.

lax (läks) *a.* [L. *laxus*, loose.] Loose, as *appl.* panicle.

layer of Langhans [*T. Langhans*, German histologist]. Cytotrophoblast.

leader (lē'dër) *n.* [A.S. *laedan*, to lead.] Highest shoot or part of trunk of a tree.

leaf (lēf) *n.* [A.S. *leaf*, leaf.] An expanded outgrowth of a stem, usually green.

leaf-buttress,—lateral prominence on shoot axis, due to underlying leaf primordium, representing leaf-base.

leaf-cushions,—prominent persistent leaf-bases, furnishing diagnostic characters in certain extinct plants.

leaf-gap,—mesh of stelar network, corresponding to site of leaf attachment in ferns; gap in vascular cylinder of stem, a parenchymatous region associated with leaf-traces; lacuna.

leaflet,—a small leaf; individual unit of a compound leaf.

leaf-stalk,—petiole.

leaf-trace,—vascular bundles extending from stem bundles to leaf-base. *Cf.* girdle bundles.

leberidocytes (lēbērī'dōsīts) *n. plu.* [Gk. *leberis*, exuvia; *kytos*, hollow.] Cells containing glycogen, and developing from and regressing to leucocytes, found in blood of *Arachnida* at moulting.

lechriodont (lēk'riōdōnt') *a.* [Gk. *lechrios*, crosswise; *odous*, tooth.] With vomerine and pterygoid teeth in a row nearly transverse.

lecithalbumin (lēś'ithālbū'mīn) *n.* [Gk. *lekithos*, egg-yolk; L. *albumen*, white of egg.] A substance, consisting of albumin and lecithin, of various body organs.

lecithelles (lēś'ithēlz) *n. plu.* [Gk. *lekithos*, egg-yolk.] Yolk granules in hypoblastic or other lecithoblasts.

lecithin (lēś'ithīn) *n.* [Gk. *lekithos*, egg-yolk.] A phosphorised fat or phospholipide of cell-protoplasm.

lecithoblast (lēś'ithōblāst) *n.* [Gk. *lekithos*, egg-yolk; *blastos*, bud.] In developing eggs, the yolk-containing blastomeres.

lecithocoel (lēś'ithōsēl) *n.* [Gk. *lekithos*, egg-yolk; *kóilos*, hollow.] Segmentation cavity of holoblastic eggs.

lectoallotype (lēk'tōāl'ōtip) *n.* [Gk. *lektos*, chosen; *allos*, other; *typos*, pattern.] A specimen of the opposite sex to that of the lectotype

and subsequently chosen from the original material.

lectotype (lēk'tōtip) *n.* [Gk. *lektos*, chosen; *typos*, pattern.] A specimen chosen from syntypes to designate type of species.

legume (lēg'ūm) *n.* [L. *legumen*, pulse.] Dehiscent one-celled, two-valved seed-vessel, as pod of pea or bean; lomentum, *q.v.*

legumin (lēgū'mīn) *n.* [L. *legumen*, pulse.] A globulin in seeds of Leguminosae; vegetable casein.

leiotrichous (liōt'rikūs) *a.* [Gk. *leios*, smooth; *thrix*, hair.] Having straight hair; leiothric.

leiotropic,—laeotropic, *q.v.*

leipsanenchyma (līp'sānēng'kīma) *n.* [Gk. *leipsanon*, remnant; *engchyma*, infusion.] Part of primordial tissue of a carpophore, located between stipe and pileus; lipsanenchyma.

lemma (lēm'ā) *n.* [Gk. *lemma*, husk.] A valve or flowering glume; lower or outer palea, bract with axillary flower.

lemniscus (lēmnīs'kūs) *n.* [Gk. *lemniskos*, ribbon.] One of paired club-shaped organs at base of acanthocephalan proboscis; a fillet of fibres on each side of cerebral peduncles.

lenitic (lēnīt'ik) *a.* [L. *lenis*, smooth.] Lentic, *q.v.*

lens (lēnz) *n.* [L. *lens*, lentil.] A transparent part of eye, which focuses rays of light on retina; crystalline lens; modified portion of cornea in front of each element of a compound eye; modified cells of luminescent organ in certain fishes.

lentic (lēn'tik) *a.* [L. *lentus*, slow.] *Appl.* or *pert.* standing water; living in swamp, pond, or lake; lenitic. *Opp.* lotic.

lenticel (lēn'tisēl) *n.* [L. *lens*, lentil.] Ventilating pore in angiosperm stems or roots; canal in cork; a lenticular gland.

lenticula (lēntik'ulā) *n.* [L. *lenticula*, *dim.* of *lens*, lentil.] A spore case in certain fungi; a lenticel; a lentigo or freckle.

- lenticular**,—shaped like a double-convex lens; *lentiform*; *appl.* glands, lymphoid structures between pyloric glands. *n.* Tip of incus articulating with stapes, often ossified as a separate unit.
- lenticulate** (lěntik'ulāt) *a.* [L. *lens*, lentil.] Meeting in a sharp point; depressed, circular, and frequently ribbed.
- lentiform** (lěn'tifōrm) *a.* [L. *lens*, lentil; *forma*, shape.] Lentil-shaped; lenticular; *appl.* nucleus, the extraventricular portion of corpus striatum.
- lentigerous** (lěntij'ērūs) *a.* [L. *lens*, lentil; *gerere*, to bear.] Furnished with a lens.
- lentiginose** (lěntij'inōs), **lentiginous** (lěntij'inūs) *a.* [L. *lentigo*, freckle.] Freckled; speckled; bearing numerous small dots.
- lento-capillary point**,—point, just above wilting coefficient, at which flow of water towards root hairs is impeded on account of surface tension resistance.
- leotropic**,—lacotropic, *g.v.*
- lepidodendroid** (lěp'idoděn'droid) *a.* [Gk. *lepis*, scale; *dendron*, tree; *eidos*, form.] *Pert.* Lepidodendron; having scale-like leaf-scars.
- lepidoid** (lěp'idoid) *a.* [Gk. *lepis*, scale; *eidos*, form.] Resembling a scale or scales.
- lepidomorial**,—*pert.*, or composed of, lepidomoria.
- lepidomorium** (lěp'idōmōr'iūm) *n.* [Gk. *lepis*, scale; *morion*, constituent part.] Small scale, or unit of composite scale, with bony base and conical or conoid crown of dentine, containing pulp cavity and sometimes covered with enamel.
- lepidophyte** (lěp'idōfit) *n.* [Gk. *lepis*, scale; *phyton*, plant.] A fossil plant of fern family.
- lepidopterous** (lěp'idōp'tērūs) *a.* [Gk. *lepis*, scale; *pteron*, wing.] Having wings covered with minute overlapping scales; *pert.* moths, butterflies.
- lepidosis** (lěp'idō'sīs) *n.* [Gk. *lepis*, scale.] Character and arrangement of scales of animals.
- lepidosteoid** (lěp'idōs'tēoid) *a.* [Gk. *lepis*, scale; *osteon*, bone; *eidos*, form.] *Appl.* a ganoid scale lacking cosmine.
- lepidote** (lěp'idōt) *a.* [Gk. *lepidotos*, scaly.] Covered with minute scales.
- lepidotic** (lěp'idō'tik) *a.* [Gk. *lepidotos*, scaly.] *Appl.* an acid found in wings of some Lepidoptera.
- lepidotrichia** (lěp'idōtrik'iā) *n. plu.* [Gk. *lepis*, scale; *thrix*, hair.] The bony actinotrichia of teleosts.
- lepocyte** (lěp'ōsit) *n.* [Gk. *lepis*, husk; *kytos*, hollow.] A cell with a defining cell-wall, *opp.* gymnocyte.
- lepospondylous** (lěp'ōspōn'dilūs) *a.* [Gk. *lepis*, husk; *sphondylos*, vertebra.] Having amphicoelous, or hour-glass shaped, vertebrae.
- leptocentric** (lěp'tōsēn'trik) *a.* [Gk. *leptos*, slender; *kentron*, centre.] *Appl.* concentric bundle with central leptome.
- leptocephaloid** (lěp'tōkēf'āloid, -sēf-) *a.* [Gk. *leptos*, slender; *kephale*, head; *eidos*, form.] Resembling or having the shape of eel larvae.
- leptocercal** (lěp'tōsēr'kāl) *a.* [Gk. *leptos*, slender; *kerkos*, tail.] With long slender tapering tail, as some fishes; leptocercous, *appl.* protozoa.
- leptocystidium** (lěp'tōsistid'iūm) *n.* [Gk. *leptos*, thin; *kystis*, bladder; *idion*, dim.] A thin-walled cystidium, as in many agarics.
- leptodactylous** (lěp'tōdāk'tilūs) *a.* [Gk. *leptos*, slender; *daktylos*, finger.] Having slender digits.
- leptodermatous** (lěp'tōdēr'mātūs) *a.* [Gk. *leptos*, thin; *derma*, skin.] Thin-skinned; *appl.* various thecae; leptodermic, leptodermous.
- leptoid** (lěp'toid) *n.* [Gk. *leptos*, slender; *eidos*, form.] One of the thin-walled cortical cells forming strand projecting into the central cylinder of rhizome in mosses; a tubular cell in stem of certain pteridophytes.

leptome (lēp'tōm) *n.* [Gk. *leptos*, slender.] Phloem-like part of vascular tissue of plant stems; leptomes-tome; bast; also leptom.

leptomeninges (lēp'tōmēnīn'jēz) *n. plu.* [Gk. *leptos*, thin; *meninx*, membrane.] The pia mater and arachnoid membrane.

leptonema (lēp'tōnē'mā) *n.* [Gk. *leptos*, slender; *nema*, thread.] Fine unpaired chromosome thread at leptotene.

leptophloem (lēp'tōflō'ēm) *n.* [Gk. *leptos*, slender; *phloios*, smooth bark.] Rudimentary bast tissue.

leptophyllous (lēp'tōfil'ūs) *a.* [Gk. *leptos*, slender; *phyllon*, leaf.] With slender leaves; having a small leaf area, under 25 square millimetres.

leptosoma (lēp'tōsōm) *a.* [Gk. *leptos*, slender; *soma*, body.] Tall and slender; *opp.* euryosome.

leptosporangiate (lēp'tōspōrān'jiāt) *a.* [Gk. *leptos*, slender; *sporos*, seed; *anggeion*, vessel.] With sporogenous tissue developing from outer cell of periclinal division. *Opp.* eusporangiate.

leptostroterate (lēp'tōstrō'tērāt) *a.* [Gk. *leptos*, slender; *strotos*, covered.] With ambulacral plates narrow and crowded together, as in certain Stellerioidea.

leptotene (lēp'tōtēn) *n.* [Gk. *leptos*, slender; *tainia*, band.] Early stage of the prophase of meiosis where chromatin is in form of fine threads.

leptotichous (lēp'tōtī'kūs) *a.* [Gk. *leptos*, thin; *teuchos*, wall.] Thin-walled; *appl.* plant tissue.

leptotrombicula (lēp'tōtrōmbīk'ulā) *n.* [Gk. *leptos*, slender; It. *tromba*, trumpet.] The larval form of a trombicula.

leptoxylem (lēp'tōzi'lēm) *n.* [Gk. *leptos*, slender; *xylon*, wood.] Rudimentary wood tissue.

lepto-zygotene (lēp'tōzig'ōtēn) *a.* [Gk. *leptos*, slender; *zygon*, yoke; *tainia*, band.] *Appl.* transition stage between leptoneura and zygonema.

leptus (lēp'tūs) *n.* [Gk. *leptos*, small.] The six-legged larva of mites.

lethal (lē'thāl) *a.* [L. *letum*, death.] Causing death; of a parasite, fatal or deadly in relation to a particular host; *appl.* a hereditary factor which so influences development that the individual is rendered non-viable. *n.* A lethal factor.

lethality (lēthāl'itī) *n.* [L. *letum*, death.] The ratio of fatal cases to total number of cases affected by a disease or other harmful agency.

leuceine (lū'sēin) *n.* [Gk. *leukos*, white.] An amino-acid formed during decomposition of proteids.

leucine (lū'sīn) *n.* [Gk. *leukos*, white.] Amino-caproic acid found as a constituent of pancreatic juice and of various tissues and organs, also of some plants; $C_6H_{13}O_2N$.

leucism (lū'sīzm, loo-) *n.* [Gk. *leukos*, white.] The presence of white plumage or pelage in animals with pigmented eyes and skin.

leucite (lū'sīt) *n.* [Gk. *leukos*, white.] A colourless plasteid.

leuco-,—*also* leuko-

leucoblast (lū'kōblāst, loo-) *n.* [Gk. *leukos*, white; *blastos*, bud.] A colourless blood-corpuscle in development.

leucocarpous (lū'kōkār'pūs, loo-) *a.* [Gk. *leukos*, white; *karpōs*, fruit.] With the fruit white.

leucocyan (lū'kōsī'an, loo-) *n.* [Gk. *leukos*, white; *kyanos*, dark blue.] A pigment found in certain algae.

leucocyte (lū'kōsīt, loo-) *n.* [Gk. *leukos*, white; *kytos*, hollow.] An amoebocyte; a colourless blood-corpuscle; leukocyte.

leucocytogenesis (lū'kōsī'tōjēn'ēsis, loo-) *n.* [Gk. *leukos*, white; *kytos*, hollow; *genesis*, descent.] Leucocyte formation; leucopoiesis.

leucocytoid,—histiocyte, *q.v.*

leucophore (lū'kōfōr, loo-) *n.* [Gk. *leukos*, white; *pherein*, to bear.] A yellow-pigment-bearing cell; guano-phore, iridocyte.

leucoplastids (lū'kōplās'tīdz, loo-) *n. plu.* [Gk. *leukos*, white; *plastos*,

- formed; *idion*, *dim.*] Colourless plastids from which amylo-, chloro-, and chromoplastids arise.
- leucoplasts** (lū'kōplāsts, loo-) *n. plu.* [Gk. *leukos*, white; *plastos*, formed.] Colourless granules of plant cytoplasm, *opp.* chromoplasts; leucoplastids.
- leucopoiesis** (lū'kōpoiēs'sis, loo-) *n.* [Gk. *leukos*, white; *poiesis*, making.] The formation of white blood corpuscles.
- leucopsin** (lūkōp'sin, loo-) *n.* [Gk. *leukos*, white; *opsis*, sight.] Visual white, formed from visual yellow; vitamin A alcohol.
- leucopterin(e)** (lū'kōp'tērīn, loo-) *n.* [Gk. *leukos*, white; *pteron*, wing.] A white wing pigment of certain Lepidoptera; $C_{19}H_{19}O_{11}N_{15}$.
- leucosin** (lū'kōsin, loo-) *n.* [Gk. *leukos*, white.] An albumin found in various cereals.
- leuko-**,—*see* leuco-.
- levator** (lěvā'tōr) *n.* [L. *levare*, to raise.] A name given to muscles serving to raise an organ or part. *Opp.* depressor.
- levigate** (lěv'igāt) *v.* [L. *levigare*, to make smooth.] To smoothen. *a.* Made smooth.
- levulose**,—*laevulose*, *q.v.*
- Leydig's cells** [F. von *Leydig*, German anatomist]. Cells in testicular interstitial tissue.
- Leydig's duct**,—the Wolffian duct.
- Leydig's organs**,—minute organs on antennae of arthropods, supposed to be organs of smell.
- liana** (liān'ā), **liane** (liān') *n.* [F. *liane*, from L. *ligare*, to bind.] Any luxuriant woody climbing plant of tropical or semi-tropical forests.
- Lias** (li'ās) *n.* [*layers*.] Marine and estuarine deposits of Jurassic period, containing remains of cycads, insects, ammonites, saurians, and other fossils.
- liber** (li'bēr) *n.* [L. *liber*, inner bark.] Inner bark; bast.
- libido** (libi'dō) *n.* [L. *libido*, desire.] Excitation within body associated with instinct; sexual energy; psychic energy; hormone, *q.v.*; élan vital.
- libriform** (li'brifōrm) *a.* [L. *liber*, inner bark; *forma*, shape.] Resembling bast; *appl.* fibres, woody, later becoming septate.
- lichenin** (li'kēnīn) *n.* [Gk. *leichen*, lichen.] A polysaccharide found in *Cetraria islandica* and other lichens, hydrolysed by the enzyme lichenase; lichenine, lichen starch, moss starch.
- lichenism** (li'kēnīzm) *n.* [Gk. *leichen*, lichen.] Symbiotic relationship between fungi and algae.
- lichenoid** (li'kēnoid) *a.* [Gk. *leichen*, lichen; *eidos*, form.] Resembling a lichen.
- lichenology** (li'kēnōl'ōjī) *n.* [Gk. *leichen*, lichen; *logos*, discourse.] The study of lichens.
- Lieberkühn's crypts** [J. N. *Lieberkühn*, German anatomist]. Tubular glands of the small intestine.
- Liebig's law** [J. von *Liebig*, German chemist]. The food element least plentiful in proportion to the requirements of plants limits their growth; law of the minimum, *q.v.*
- lien** (li'én) *n.* [L. *lien*, spleen.] Spleen.
- lienal** (liē'nāl) *a.* [L. *lien*, spleen.] *Pert.* spleen; *appl.* artery, vein, nerve plexus; splenic.
- lienculus** (liēn'kulūs) *n.* [*Dim.* of L. *lien*, spleen.] An accessory spleen.
- lienogastric** (liē'nōgās'trik) *a.* [L. *lien*, spleen; *gaster*, stomach.] *Pert.* spleen and stomach; *appl.* artery supplying spleen and parts of stomach and pancreas; *appl.* vein of hepatic portal system.
- lienorenal**,—*see* phrenicolienal.
- life-cycle**,—the various phases through which an individual species passes to maturity.
- life zone**,—a biome, *q.v.*; a subdivision of a biome, as temperature, distribution, community, etc., zones.
- ligament** (lig'āmēt) *n.* [L. *ligamentum*, bandage.] A strong fibrous band of tissue connecting two or more moveable bones.

ligamenta flava,—yellow elastic ligaments connecting laminae of adjoining vertebrae.

lignous (līg'nēūs) *a.* [L. *lignum*, wood.] Woody; of nature of wood.

lignescence (lignēs'ēnt) *a.* [L. *lignescere*, to become woody.] Developing the characters of woody tissue.

lignicolous (lignīk'ölūs) *a.* [L. *lignum*, wood; *colere*, to inhabit.] Growing on or in wood.

lignification (līg'nifikā'shūn) *n.* [L. *lignum*, wood; *facere*, to form.] Wood-formation; thickening of plant cell-walls by deposition of lignin.

lignin (līg'nīn) *n.* [L. *lignum*, wood.] A complex substance which, associated with cellulose, causes the thickening of plant cell-walls, and so forms wood.

lignivorous (lignīv'örūs) *a.* [L. *lignum*, wood; *vorare*, to devour.] Eating wood; *appl.* various insects.

lignocellulose (līg'nösēl'ülōs) *n.* [L. *lignum*, wood; *cellula*, little cell.] Essential constituent of woody tissue, lignin and cellulose combined.

lignose (līg'nōs) *n.* [L. *lignum*, wood.] A variety of cellulose.

ligula (līg'ülā) *n.* [L. *ligula*, little tongue.] A band or taenia of white matter in dorsal wall of fourth ventricle; median structure between labial palps of insects; lobe of parapodium in certain annelids; ligule, *q.v.*; lingula, *q.v.*

ligulate (līg'ülāt) *a.* [L. *ligula*, little tongue.] Having or *pert.* ligules; strap-shaped, as ray florets of Compositae.

ligule (līg'ül) *n.* [L. *ligula*, little tongue.] A membranous outgrowth at junction of blade and leaf-sheath or petiole; small scale on upper surface of leaf-base in Lepidodendreae, Selaginellaceae, and Isoetes; a tongue-shaped corolla, as of certain florets.

liguliflorous (līg'ülīflō'rūs) *a.* [L. *ligula*, little tongue; *flos*, flower.] Having ligulate flowers only.

limacel (līm'mäsēl) *n.* [F., from L.

limax, slug.] Concealed vestigial shell of slugs; limacelle.

limaciform (līmās'īfōrm) *a.* [L. *limax*, slug; *forma*, shape.] Like a slug; slug-shaped.

limacine (līm'āsin) *a.* [L. *limax*, slug.] *Pert.* slugs.

limb (līm) *n.* [A.S. *lim*, limb.] Branch; arm; leg; wing; expanded portion of unguiculate petal.

limbate (līm'bāt) *a.* [L. *limbus*, border.] With a border; bordered and having a differently coloured edge.

limbic (līm'bīk) *a.* [L. *limbus*, border.] Bordering; *appl.* a cerebral lobe, including hippocampal and cingulate gyri.

limbous (līm'būs) *a.* [L. *limbus*, border.] *Appl.* overlapping sutures.

limbus (līm'būs) *n.* [L. *limbus*, border.] Any border if distinctly marked off by colour or structure.

limen (līm'ēn) *n.* [L. *limen*, threshold.] Threshold, minimum stimulus, or quantitative difference in stimulation, that is perceptible; boundary, as between vestibule of nostril and nasal cavity, limen nasi.

limicolous (limīk'ölūs) *a.* [L. *limus*, mud; *colere*, to dwell.] Living in mud.

liminal (līm'īnāl) *a.* [L. *limen*, threshold.] *Pert.* a threshold; *appl.* stimulus; *appl.* sensation.

limited,—*appl.* chromosomes in germinal, not in somatic, nuclei.

limitrophic (līm'itrōf'īk) *a.* [Gk. *limos*, hunger; *trophe*, nourishment.] *Pert.* or controlling nutrition.

limivorous (līmīv'örūs) *a.* [L. *limus*, mud; *vorare*, to devour.] Mud-eating; *appl.* certain aquatic animals which swallow mud.

limnetic (līm'nēt'īk) *a.* [Gk. *limne*, marshy lake.] Living in, or *pert.*, marshes or lakes; *appl.* zone of deep water between surface and compensation depth.

limnobiology (līm'nōbīōl'ōjī) *n.* [Gk. *limne*, lake; *bios*, life; *logos*, discourse.] The study of life in standing fresh waters.

- limnobios** (lim'nöbī'ös) *n.* [Gk. *limne*, lake; *bios*, life.] Life in fresh water; fresh-water plants and animals collectively.
- limnocryptophyte** (lim'nökrīp'töfit) *n.* [Gk. *limne*, marsh; *kryptos*, hidden; *phylon*, plant.] A helophyte or marsh plant; limnophyte.
- limnology** (limnöl'öjt) *n.* [Gk. *limne*, marshy lake; *logos*, discourse.] Science dealing with biological and other phenomena *pert.* inland waters; the study of standing waters.
- limnophilous** (limnōf'ilūs) *a.* [Gk. *limne*, marsh; *philein*, to love.] Living in fresh-water marshes; also limnobiotic.
- limnophyte** (lim'nöfit) *n.* [Gk. *limne*, marshy lake; *phylon*, plant.] A pond plant; a helophyte.
- limnoplankton** (lim'nöplāng'ktōn) *n.* [Gk. *limne*, marshy lake; *planktos*, wandering.] The floating animal and plant life in fresh-water lakes, ponds, and marshes. *Opp.* haloplankton.
- limosphere** (lim'ösfēr) *n.* [Gk. *limen*, receptacle; *sphaira*, globe.] A spherical body containing a vacuole, situated near blepharoplast in spermiogenesis of some mosses.
- linea** (līn'ēä) *n.* [L. *linea*, line.] A line-like structure or mark.
- linear** (līn'ēär) *a.* [L. *linea*, line.] *Pert.* or in a line; tape- or thread-like; asthenic, *appl.* constitutional type.
- linear-ensate**,—between linear and ensiform in shape.
- linear - lanceolate**,—between linear and lanceolate in shape.
- linear-oblong**, between linear and oblong in shape.
- linellae** (līnēl'ē) *n. plu.* [L. *linella*, fine thread.] A system of filaments in certain Sarcodina holding together the xenophya.
- lineolate** (līn'ēölät) *a.* [L. *linea*, line.] Marked by fine lines or striae.
- lingua** (līng'gwä) *n.* [L. *lingua*, tongue.] The floor of mouth in mites; hypopharynx of insects; a tongue, or tongue-like structure.
- lingual** (līng'gwäl) *a.* [L. *lingua*, tongue.] *Pert.* tongue; *appl.* artery, gyrus, nerve, vein, etc.; *appl.* radula of molluscs.
- linguiform** (līng'gwīfōrm) *a.* [L. *lingua*, tongue; *forma*, shape.] Tongue-shaped.
- lingula** (līng'gūlä) *n.* [L. *lingula*, little tongue.] A small tongue-like process of bone or other tissue, as of cerebellum or sphenoid; a genus of brachiopods; ligula, *q.v.*
- lingulate**,—ligulate, *q.v.*
- linin** (lī'nin) *n.* [L. *linum*, flax.] The substance of achromatinic or oxyphilic reticulum of cell-nucleus.
- lininoplast** (līn'inöpläst) *n.* [L. *linum*, flax; Gk. *plastos*, moulded.] Plasmosome, *q.v.*
- linkage** (līng'kēj) *n.* [A.S. *hlince*, link.] Tendency of certain hereditary factors to remain associated through several generations; gametic coupling.
- Linnaean** (līnē'an) *a.* [C. *Linné* or *Linnaeus*, Swedish naturalist]. *Pert.* or designating the system of classification established by Linnaeus.
- linneon** (līnē'on) *n.* [C. *Linné*, Swedish naturalist]. Linnaean or taxonomic species.
- lipase** (līp'äs) *n.* [Gk. *lipos*, fat.] A lipolytic or fat-splitting enzyme, found in blood and in various plant and animal organs, and in various seeds.
- lip-cell**,—a sporangium cell at the point of dehiscence.
- lipides** (līp'idz) *n. plu.* [Gk. *lipos*, fat.] Heterogeneous compounds soluble in fats and their solvents, including fats, waxes, chromolipides, sterols, glycolipides, phospholipides; lipids; *cf.* lipoids.
- lipines** (līp'īnz) *n. plu.* [Gk. *lipos*, fat.] Compound lipides, including phospholipides and cerebrosides; lipins.
- lipochondria** (līp'ökön'driä) *n. plu.* [Gk. *lipos*, fat; *chondros*, grain.] Lipoid granules in the Golgi zone; Golgi presubstance.

- lipochrin** (lipō'krin) *a.* [Gk. *lipos*, fat; *ochros*, swallow.] *Appl.* yellow lipid droplet, fading by light, in unpigmented base of retinal cell.
- lipochroic** (lip'ōkrō'ik) *a.* [Gk. *lipos*, fat; *chros*, colour.] With pigment in oil droplets.
- lipochromes** (lip'ōkrōmz) *n. plu.* [Gk. *lipos*, fat; *chroma*, colour.] A more or less indefinite group of plant and animal pigments, as carotins, luteins, chlorophane, rhodophane, xanthophane, zoonerythrin, etc.
- lipoclastic** (lip'ōklās'tik) *a.* [Gk. *lipos*, fat; *klastos*, broken.] Fat-splitting; lipolytic; *appl.* enzymes.
- lipofuscin** (lip'ōfūs'sin) *n.* [Gk. *lipos*, fat; *L. fuscus*, dusky.] A yellowish-brown pigment in cytoplasm of some nerve-cells.
- lipogastri** (li'pōgās'tri) *n.* [Gk. *leipesthai*, to be lacking; *gaster*, stomach.] Temporary obliteration of gastral cavity, as in some sponges.
- lipogenous** (lipōj'enūs) *a.* [Gk. *lipos*, fat; *genos*, birth.] Fat-producing.
- lipohumour** (lip'ōhū'mōr) *n.* [Gk. *lipos*, fat; *L. humor*, moisture.] A fat-soluble substance produced by nerves and acting on chromatophores.
- lipoid** (lip'oid) *a.* [Gk. *lipos*, fat; *eidos*, form.] Resembling a fatty substance. *n.* A lipide; one of various fat-soluble substances occurring in plants and animals, as a sterol, carotene, terpene.
- lipolysis** (lipōl'isis) *n.* [Gk. *lipos*, fat; *lysis*, loosing.] The dissolution of fat.
- lipolytic** (lip'ōlit'ik) *a.* [Gk. *lipos*, fat; *lyein*, to dissolve.] Capable of dissolving fat; fat-reducing.
- lipomerism** (lipōm'erizm) *n.* [Gk. *leipesthai*, to be lacking; *meros*, part.] Suppression of segmentation, or coalescence of segments, as in crustaceans.
- lipopalingenesis** (li'pōpāl'injēn'ēsīs) *n.* [Gk. *leipesthai*, to be lacking; *palin*, anew; *genesis*, descent.] The omission of some stage or stages in phylogeny.
- lipophore** (lip'ōfōr) *n.* [Gk. *lipos*, fat; *-phoros*, -bearing.] A wandering cell originating in neural crest and containing a lipochrome.
- lipoproteins** (lip'ōprō'tēinz) *n. plu.* [Gk. *lipos*, fat; *proteion*, first.] Proteins united with fatty compounds.
- lipostomy** (lipōs'tōmi) *n.* [Gk. *leipesthai*, to be lacking; *stoma*, mouth.] Temporary obliteration of mouth or osculum.
- lipotropic** (lipōtrōp'ik) *a.* [Gk. *lipos*, fat; *tropē*, turn.] Influencing fat metabolism; accelerating removal of fat.
- lipoxanthins**,—lipochromes.
- lipoxenous** (lipōzēn'ūs, lipōk'sēnūs) *a.* [Gk. *leipein*, to abandon; *xenos*, host.] Leaving the host before completion of development.
- lipsanenchyma**,—leipsanenchyma.
- lirella** (lirēl'ā) *n.* [L. *lira*, furrow.] A linear apothecium of lichens.
- lissencephalous** (lis'ēnkēf'alūs, -sēf-) *a.* [Gk. *lissos*, smooth; *engkephalos*, brain.] Having few or no convolutions of the brain; lissencephalic.
- lissoflagellate** (lis'ōflāj'elāt) *a.* [Gk. *lissos*, smooth; *L. flagellum*, whip.] Having no collar surrounding base of flagellum.
- lithite** (lith'it) *n.* [Gk. *lithos*, stone.] A calcareous secretion found in connection with ear, or with otocysts, lithocysts, and tentaculocysts, sensory organs of many invertebrates.
- lithocarp** (lith'ōkārp) *n.* [Gk. *lithos*, stone; *karpōs*, fruit.] Fossil fruit or carpolith.
- lithocysts** (lith'ōsists) *n. plu.* [Gk. *lithos*, stone; *kystis*, bladder.] Minute sacs or grooves, containing lithites, found in various invertebrates; enlarged cells of plant epidermis, in which cystoliths are formed.
- lithodesma** (lith'ōdēs'mā) *n.* [Gk. *lithos*, stone; *desma*, bond.] A small plate, shelly in nature, found in certain bivalves.
- lithodomous** (lithōd'ōmūs) *a.* [Gk. *lithos*, stone; *domos*, house.] Living in rock-holes or clefts.

- lithogenous** (lithōj'ēnūs) *a.* [Gk. *lithos*, stone; *-genes*, producing.] Rock-forming, or rock-building, as certain corals.
- lithophagous** (lithōf'āgūs) *a.* [Gk. *lithos*, stone; *phagein*, to eat.] Stone-eating, as birds; rock-burrowing, as some molluscs and sea-urchins.
- lithophilous** (lithōf'ilūs) *a.* [Gk. *lithos*, stone; *philein*, to love.] Growing on stones or rocks; saxicoline.
- lithophyll** (lith'ōfil) *n.* [Gk. *lithos*, stone; *phyllon*, leaf.] A fossil leaf, or leaf-impression.
- lithophyte** (lith'ōfit) *n.* [Gk. *lithos*, stone; *phyton*, plant.] Plant growing on rocky ground.
- lithosere** (lith'ōsēr) *n.* [Gk. *lithos*, stone; *L. serere*, to put in a row.] A plant succession originating on rock surfaces.
- lithosol** (lith'ōsöl) *n.* [Gk. *lithos*, stone; *solum*, soil.] A shallow soil largely composed of incompletely weathered rock fragments.
- lithotomous** (lithōt'ōmūs) *a.* [Gk. *lithos*, stone; *temnein*, to cut.] Stone-boring, as certain molluscs.
- littoral** (lit'ōrāl) *a.* [L. *litus*, sea-shore.] Growing or living at or near the sea-shore; *appl.* zone between high and low water marks; also *appl.* cells, fixed macrophages, lining sinuses of reticular tissues and the wall of lymph channels; littoral.
- Littre's glands** [*A. Littre*, French surgeon]. Urethral mucous glands.
- lituate** (lit'ūāt) *a.* [L. *lituus*, augur's staff.] Forked, with prongs curving outwards.
- liver** (liv'ēr) *n.* [A.S. *lifer*, liver.] The bile-secreting gland of vertebrates; digestive gland of some invertebrates.
- liver factor**,—vitamin B₁₂, anti-pernicious anaemia factor.
- liver-pancreas**,—an organ in molluscs and crustaceans, combining functions of liver and pancreas.
- lobar** (lō'bār) *a.* [L.L. *lobus*, lobe.] Of or *pert.* a lobe.
- lobate** (lō'bāt) *a.* [L.L. *lobus*, lobe.] Divided into lobes; lobose.
- lobe** (lōb) *n.* [L.L. *lobus*, from Gk. *lobos*, lobe.] Any rounded projection of an organ; lobus; a flap-like structure on toes of certain birds.
- lobed** (lōbd) *a.* [Gk. *lobos*, lobe.] Having margin cut up into rounded divisions by incisions which reach less than half-way to mid-rib.
- lobopodia** (lōb'ōpō'diā) *n. plu.* [Gk. *lobos*, lobe; *pous*, foot.] Blunt pseudopodia of Protozoa.
- lobose** (lōb'ōs) *a.* [Gk. *lobos*, lobe.] Divided into lobes; lobate.
- lobular** (lōb'ulār) *a.* [Gk. *lobos*, lobe.] Like or *pert.* small lobes.
- lobulate** (lōb'ulāt) *a.* [Gk. *lobos*, lobe.] Divided into small lobes.
- lobule** (lōb'ul) *n.* [*Dim.* of L.L. *lobus*, lobe.] A small lobe or subdivision of a lobe; lobulus.
- lobus** (lō'būs) *n.* [L.L. *lobus*, lobe.] Lobe; portion of an organ, as of glands and brain, delimited by fissures or septa.
- local sign**,—characteristic quality of a tactile or other sensation associated with point of stimulation.
- localisation** (lō'kālizā'shūn) *n.* [L. *localis*, local.] Determination of a position; restriction to a limited area; restriction of pairing and chiasma formation at pachytene to one part of the chromosome.
- localisation of function**,—reference to different parts of brain as communicating centres of various senses.
- localisation of sensation**,—identification on surface of body of exact spot affected.
- locellus** (lōsēl'ūs) *n.* [L. *locellus* from *locus*, place.] A small compartment of an ovary.
- lociation** (lōsiā'shūn) *n.* [L. *locus*, place.] Local differences in abundance or proportion of dominant species; local faciation.
- locomotor rods**,—hooked or knobbed rods for crawling, on ventral surface of certain Nematoda.
- ocular** (lōk'ulār) *a.* [L. *oculus*, little place.] Containing, or composed of loculi; loculate.

locule,—loculus.

loculi,—*plu.* of loculus.

loculicidal (lök'ülisi'däl) *a.* [*L. loculus*, compartment; *caedere*, to cut.] Dehiscent dorsally down middle of carpels.

loculus (lök'ülüs) *n.* [*L. loculus*, compartment.] A small chamber or cavity; cavity in stroma, containing asci; cavity of an ovary or of an anther; cavity between septa in certain Coelenterata; chamber of foraminiferal shell.

locus (lō'kü) *n.* [*L. locus*, place.] Position of gene in the chromosome; location of a stimulus.

locusta (löküs'tä) *n.* [*L. locusta*, locust.] Spikelet of grasses; a locust.

lodicule (löd'ikül) *n.* [*L. lodicula*, coverlet.] A scale at base of ovary in grasses, supposed to represent part of a perianth.

lodix (lō'diks) *n.* [*L. lodix*, blanket.] A ventral sclerite of seventh abdominal segment, covering genital plate, in Lepidoptera.

logotype (lög'ötíp) *n.* [*Gk. logos*, word; *typos*, pattern.] A genotype by subsequent designation, not originally described as such.

loma (lō'ma) *n.* [*Gk. loma*, hem.] A thin membranous flap forming a fringe round an opening; fringe of toe in birds.

lomastome (lō'mästöm) *a.* [*Gk. loma*, hem; *stoma*, mouth.] Having margin of lip recurved or reflected.

loment,—lomentum.

lomentaceous (lō'mëntä'shüs) *a.* [*L. lomentum*, bean meal.] *Pert.*, resembling, or having lomenta.

lomentum (lōmën'tüm) *n.* [*L. lomentum*, bean meal.] A legume or pod constricted between seeds; loment.

long-day,—*appl.* plants in which the flowering period is hastened by a relatively long photoperiod, ordinarily more than 12 hours.

longicorn (lön'jilkörn) *a.* [*L. longus*, long; *cornu*, horn.] Having long antennae; *appl.* certain beetles.

longipennate (lön'jipën'ät) *a.* [*L.*

longus, long; *penna*, wing.] Having long wings, or long feathers.

longirostral (lön'jirös'träl) *a.* [*L. longus*, long; *rostrum*, beak.] With a long beak; longirostrate.

longisection (lön'jisék'shün) *n.* [*L. longus*, long; *sectio*, cut.] Longitudinal section; section along or parallel to a longitudinal axis. *Opp.* transection.

loop cell,—dome cell, *q.v.*

loph (löf) *n.* [*Gk. lophos*, crest.] Crest which may connect cones in teeth and so form a ridge.

lophiostomate (löf'iös'tömät) *a.* [*Gk. lophion*, small crest; *stoma*, mouth.] With crested conceptacle-opening.

lophobranchiate (löf'öbräng'kiät) *a.* [*Gk. lophos*, crest; *branchia*, gills.] With tufted gills.

lophocaltrops (löf'ökäl'tröps) *n.* [*Gk. lophos*, crest; *A.S. coltraepp*, kind of thistle.] A sponge spicule with rays crested or branched.

lophocercal (löf'ösër'käl) *a.* [*Gk. lophos*, crest; *kerkos*, tail.] Having a rayless caudal fin like a ridge round end of vertebral column.

lophodont (löf'ödönt) *a.* [*Gk. lophos*, crest; *odous*, tooth.] Having transverse ridges on the cheek-teeth grinding surface.

lophophore (löf'öför) *n.* [*Gk. lophos*, crest; *pherein*, to carry.] A horse-shoe-shaped tentacle-supporting organ in Polyzoa and Brachiopoda.

lophoselenodont (löf'ösälē'nödönt) *a.* [*Gk. lophos*, crest; *selen*, moon; *odous*, tooth.] Having cheek-teeth ridged with crescentic cuspid ridges on grinding surface.

lophosteon (löfös'tëön) *n.* [*Gk. lophos*, crest; *osteon*, bone.] The keel-ridge of a sternum.

lophotriaene (löf'ötří'ën) *n.* [*Gk. lophos*, crest; *triaina*, trident.] Lophocaltrops, *q.v.*

lophotrichous (löföt'riküs) *a.* [*Gk. lophos*, tuft; *thrix*, hair.] Having long whip-like flagella; with a tuft of flagella at one pole; *appl.* bacteria; lophotrichate, lophotrichic.

loral (lō'räl) *a.* [*L. lorum*, thong.] *Pert.* or situated at the lore.

lorate (lō'rāt) *a.* [*L. lorum*, thong.] Strap-shaped.

lore (lōr) *n.* [*L. lorum*, thong.] Space between bill and eyes in birds.

Lorenzini's ampullae,—ampullary temperature receptors of rostrum in elasmobranchs.

lorica (lōrī'kā, lōr'īkā) *n.* [*L. lorica*, corselet.] A protective external case found in rotifers, infusorians, and diatoms.

loricate (lō'rīkāt) *a.* [*L. lorica*, corselet.] Covered with protective shell or scales.

lorication moment,—the occasion of deposition of silica or calcium carbonate for an entire skeleton at one time; dictyotic moment.

lorulum (lō'rūlūm) *n.* [*L. dim. of lorum*, thong.] The small strap-shaped and branched thallus of certain lichens.

lorum (lō'rūm) *n.* [*L. lorum*, thong.] The piece of under jaw on which submentum lies in certain insects; dorsal plate protecting pedicel in spiders.

lotic (lō'tīk) *a.* [*L. lotum*, flowed over.] *Appl.* or *pert.* running water; living in brook or river. *Opp.* lentic.

Louis, angle of [*A. Louis*, French surgeon]. Angulus Ludovici or sternal angle.

loxodont (lōk'sōdōnt) *a.* [*Gk. loxos*, oblique; *odous*, tooth.] Having molar teeth with shallow grooves between the ridges.

luciferase (loos'īfērās) *n.* [*L. lux*, light; *ferre*, to carry.] An oxidising enzyme which acts on luciferin, causing luminescence; photogenin.

luciferin (loos'īfērīn) *n.* [*L. lux*, light; *ferre*, to carry.] Intracellular or extracellular substance oxidised by luciferase, causing luminescence; photophelein.

lucifugal (lūsīf'ūgāl, loo-) *a.* [*L. lucifugus*, avoiding the light.] Shunning light; *appl.* fruit-body of certain fungi; lucifugous; photophobic. *Opp.* lucipetal.

lucipetal (lūsīp'ētāl, loo-) *a.* [*L. lux*, light; *petere*, to seek.] Requiring light; photophilous. *Opp.* lucifugal.

lumbar (lūm'bār) *a.* [*L. lumbus*, loin.] *Pert.* or near the region of the loins; *appl.* artery, vein, vertebrae, plexus, gland, etc.

lumbocostal (lūm'bōkōs'tāl) *a.* [*L. lumbus*, loin; *costa*, rib.] *Pert.* loins and ribs; *appl.* arch, ligament.

lumbosacral (lūm'bōsā'krāl) *a.* [*L. lumbus*, loin; *sacrum*, sacred.] *Pert.* loins and sacrum; *appl.* nerve and trunk, plexus.

lumbrical (lūm'brikāl) *a.* [*L. lumbricus*, earth-worm.] Lumbriciform; *appl.* four small muscles in palm of hand and in sole of foot: lumbricales, *sing.* lumbricalis.

lumbriciform (lūmbrī's'īfōrm) *a.* [*L. lumbricus*, earth-worm; *forma*, shape.] Like a worm in appearance.

lumbricoid,—lumbriciform.

lumen (lū'mēn, loo-) *n.* [*L. lumen*, light.] The cavity of a tubular part or organ; central cavity of a plant cell.

luminescent organs,—specialised organs for the production of light, found in various plant and animal organisms.

lumirhodopsin (lū'mīrōdōp'sīn, loo-) *n.* [*L. lumen*, light; *Gk. rhodon*, rose; *opsis*, sight.] Transient orange-red product of the bleaching of rhodopsin by light, is converted into metarhodopsin.

lunar (lū'nār, loo-) *a.* [*L. luna*, moon.] *Appl.* carpal bone, os lunare or lunatum, also called semilunar and intermedium; lunate.

lunate (lū'nāt, loo-) *a.* [*L. luna*, moon.] Somewhat crescent-shaped, semilunar.

lunatum,—semilunar bone.

lunette (lūnēt') *n.* [*F. lunettes*, spectacles.] Transparent lower eyelid of snakes.

lung (lūng) *n.* [*A.S. lunge*, lung.] The paired or single respiratory organ of air-breathing higher animal forms.

lung-book,—the respiratory organ of scorpions and spiders, formed like a purse with numerous compartments.

lunula (lū'nūlā, loo-) *n.* [L. *lunula*, small moon.] Lunule.

lunular (lū'nūlār, loo-) *a.* [L. *lunula*, small moon.] With crescent-shaped marking; lunulate.

lunule (lū'nūl, loo-) *n.* [L. *lunula*, small moon.] A crescent-shaped structure or marking; lunula; small crescentic sclerite, the frontal lunule, above antennal bases in certain Diptera; white opaque portion of nail near root.

lunulet (lū'nūlēt, loo-) *n.* [L. *lunula*, small moon.] A small lunule.

lupulin (lū'pūlīn, loo'pūlīn) *n.* [L. *lupus*, hop.] The resinous glandular scales of hops; an organic compound, bitter and acrid, obtained from these; $C_{26}H_{38}O_4$.

luteal (lū'tēāl, loo-) *a.* [L. *luteus* orange-yellow.] *Pert.* or like cells of corpus luteum; *appl.* lutein and paralutein cells; *appl.* hormone: progesterone.

lutein (lū'tēīn, loo-) *n.* [L. *luteus*, orange-yellow.] The yellow lipochrome pigment of egg-yolk and corpus luteum; $C_{40}H_{56}O_2$.

lutein cells,—modified granulosa cells during formation of corpus luteum; follicular lutein cells, *opp.* lutein cells of theca interna.

luteination,—luteinisation.

luteinisation (lū'tēīnizā'shūn, loo-) *n.* [L. *luteus*, orange-yellow.] The formation of corpus luteum.

luteinising hormone,—a pituitary hormone which stimulates theca-lutein cell formation and interstitial cells of testis; LH, prolan B.

luteosterone,—progesterone, progestin.

luteotrophic (lū'tēōtrōf'īk) *a.* [L. *luteus*, orange-yellow; Gk. *trophē*, nourishment.] *Appl.* hormone which assists in maintaining corpus luteum, and may also be lactogenic.

luteorophin,—luteotrophic hormone; luteotropin, prolactin; LTH.

Luis, nucleus of,—corpus subthalamicum of hypothalamus.

lychnidiate (līknīd'īāt) *a.* [Gk. *lychnidion*, small lamp.] Luminous.

lycopene (lī'kōpēn) *n.* [L. *L. lycopersicum*, tomato, from Gk. *lykopersikon*.] The red carotenoid pigment of fruits of tomato, rose, etc.; lycopin; $C_{40}H_{56}$.

lygophil (lī'gōfīl) *a.* [Gk. *lyge*, shadow; *philos*, friend.] Preferring shade or darkness.

lymph (līmf) *n.* [L. *lymphā*, water.] An alkaline colourless fluid contained in lymphatic vessels.

lymph heart,—contractile expansion of a lymph vessel where it opens into a vein, in many vertebrates.

lymphatic (līm'fāt'īk) *a.* [L. *lymphā*, water.] *Pert.* or conveying lymph.

lymphocyte (līm'fōsit) *n.* [L. *lymphā*, water; Gk. *kytos*, hollow.] A small mononuclear colourless corpuscle of blood and lymph.

lymphogenic (līm'fōjēn'īk) *a.* [L. *lymphā*, water; Gk. *-genes*, producing.] Produced in lymph-glands.

lymphogenous (līm'fōjē'nūs) *a.* [L. *lymphā*, water; Gk. *-genes*, producing.] Lymph-forming.

lymphoid (līm'foid) *a.* [L. *lymphā*, water; Gk. *eidos*, form.] *Appl.* retiform tissue with meshes largely occupied by lymph corpuscles; adenoid.

lymphoidocyte (līm'foidōsit) *n.* [L. *lymphā*, water; Gk. *eidos*, form; *kytos*, hollow.] Haemocytoblast.

lymphomonocyte (līm'fōmōn'ōsit) *n.* [L. *lymphā*, water; Gk. *monos*, single; *kytos*, hollow.] A large mononuclear leucocyte.

lymphomyelocyte (līm'fōmī'ēlōsit) *n.* [L. *lymphā*, water; Gk. *myelos*, marrow; *kytos*, hollow.] Myeloblast.

lyochromes (lī'ōkrōmz) *n. plu.* [Gk. *lyein*, to loose; *chroma*, colour.] Water-soluble yellow cell pigments, or flavins, including vitamin B₂.

lyocytosis (lī'ōsitō'sīs) *n.* [Gk. *lyein*, to loose; *kytos*, hollow.] Histolysis by extra-cellular digestion, as in insect metamorphosis.

Lyonnet's glands,—paired accessory silk glands in lepidopterous larvae; Filippi's glands.

lyophil (li'öfil) *a.* [Gk. *lyein*, to loose ; *philos*, loving.] *Appl.* solutions which, after evaporation to dryness, go readily into solution again on addition of fluid ; *cf.* lyophobe.

lyophobe (li'öföb) *a.* [Gk. *lyein*, to loose ; *phobos*, fear.] *Appl.* solutions which, after evaporation to dryness, remain as a solid ; *cf.* lyophil.

lyotropic (liötröp'ik) *a.* [Gk. *lyein*, to loose ; *trope*, turn.] *Appl.* solutions which are dependent on changes in the solvent itself.

lyra (li'rä) *n.* [Gk. *lyra*, lyre.] Triangular lamina or psalterium joining lateral parts of fornix, marked with fibres as a lyre ; a lyrate pattern as on some bones ; a series of chitinous rods forming part of the stridulating organ in certain spiders.

lyrate (li'rät) *a.* [Gk. *lyra*, lyre.] Lyre-shaped ; *appl.* certain leaves.

lyriform (li'ríförm) *a.* [L. *lyra*, lyre ; *forma*, shape.] Lyre-shaped ; *appl.* a sensory organ, the lyra, in spiders.

lysactinic (lisäktin'ik) *a.* [Gk. *lysis*, loosing ; *aktis*, ray.] Of Stellerioidea, having podia limited to lower half of body instead of continued to apical plates ; *cf.* desmactinic.

lysigenic,—lysigenous.

lysigenous (lisi'j'énüs) *a.* [Gk. *lysis*, loosing ; *-genes*, producing.] *Appl.* formation of tissue cavities caused by degeneration and breaking down of cell-walls in centre of mass.

lysin (li'sin) *n.* [Gk. *lysis*, loosing.] Any substance capable of causing dissolution or lysis of cells or bacteria.

lysine (li'sën) *n.* [Gk. *lysis*, loosing.] A diamino-acid, constituent of some plant proteins, a dietary factor, and cleavage product of certain animal proteins ; $C_6H_{14}O_2N_2$.

lysis (li'sis) *n.* [Gk. *lysis*, loosing.] Breaking down or dissolution of compounds or cells, as by enzymes.

lysogenesis (li'söjën'ësis) *n.* [Gk.

lysis, loosing ; *genesis*, descent.] The action of lysins.

lysogenous,—lysigenous.

lysosomes (li'sösözm) *n. plu.* [Gk. *lysis*, loosing ; *soma*, body.] Particles in cytoplasm, smaller than mitochondria, consisting of a membrane enclosing several enzymes ; mitochondria B, light mitochondria.

lysozyme (li'sözim) *n.* [Gk. *lysis*, loosing ; *zyme*, leaven.] A globulin found in mammalian tissue secretions, white of egg, and some micro-organisms, and having mucolytic and bactericidal properties.

lytic (lit'ik) *a.* [Gk. *lyein*, to break down.] *Pert.* lysis ; *pert.* a lysin.

lytta (lit'ä) *n.* [Gk. *lytta*, madness.] A vermiform structure of muscle, fatty and connective tissue, or cartilage, under the tongue of mammals ; cantharis, a blister-beetle.

M

macerate (mäs'ërät) *v.* [L. *macerare* to soften.] To wear away or to isolate parts of a tissue or organ ; to soften and wear away by digestion or other means.

machopolyp (māk'öpöl'ip) *n.* [Gk. *mache*, fight ; *polys*, many ; *pous*, foot.] A nematophore, of certain Hydromedusae, provided with cnidoblasts or adhesive globules.

macrander (mäkrän'der) *n.* [Gk. *makros*, large ; *aner*, male.] A large male plant.

macrandrous (mäkrän'drüs) *a.* [Gk. *makros*, large ; *aner*, male.] Having large male plants or elements.

macranter (mäk'ränër) *n.* [Gk. *makros*, large ; *aner*, male.] Male ant of unusually large size.

macrergate (mäkrër'gät) *n.* [Gk. *makros*, large ; *ergates*, worker.] Worker ant of unusually large size.

macro,—also see mega.

macrobiotic (mäk'röbiöt'ik) *a.* [Gk. *makros*, long ; *bios*, life.] Long-lived ; life-prolonging.

macroblast (măk'rôblăst) *n.* [Gk. *makros*, large; *blastos*, bud.] A large cell or corpuscle; a young normoblast.

macrocarpous (măk'rôkăr'pūs) *a.* [Gk. *makros*, large; *karpōs*, fruit.] Producing large fruit.

macrocentrosome (măk'rôsên'trô-sôm) *n.* [Gk. *makros*, large; *kentron*, centre; *soma*, body.] Centrosome and central granule, or entosphere.

macrocephalous (măk'rôkêf'ălūs, -sêf-) *a.* [Gk. *makros*, large; *kêphale*, head.] Having the cotyledons thickened; big-headed.

macrochaeta (măk'rôkê'tă) *n.* [Gk. *makros*, large; *chaite*, hair.] A large bristle, as on body of certain insects.

macrocnemic (măk'rôknê'mîk) *a.* [Gk. *makros*, large; *kneme*, tibia.] *Appl.* Zoanthidae having the sixth protocneme or primary pair of mesenteries perfect.

macroconidium (măk'rôkônîd'îüm) *n.* [Gk. *makros*, large; *konis*, dust; *idion*, *dim.*] A large asexual spore or conidium.

macroconjugant (măk'rôkôn'joog-ănt) *n.* [Gk. *makros*, large; *L. conjugare*, to unite.] The larger individual of a conjugating pair.

macrocylic (măk'rôsîk'lik) *a.* [Gk. *makros*, large; *kyklos*, circle.] Having a complete or a long cycle; with both gametophyte and sporophyte stages. *Opp.* microcylic.

macrocyt (măk'rôsîst) *n.* [Gk. *makros*, large; *kystis*, bladder.] A large reproductive cell of certain fungi; a large cyst or case, as for spores.

macrocystidium (măk'rôsîstîd'îüm) *n.* [Gk. *makros*, large; *kystis*, bladder; *idion*, *dim.*] A long cystidium-like structure in some Gasteromycetes.

macrocytase (măk'rôsî'tās) *n.* [Gk. *makros*, large; *kytos*, hollow.] The enzyme of macrophages or endothelial cells.

macroductylous (măk'rôdăk'tîlūs) *a.*

[Gk. *makros*, long; *daktylos*, finger.] With long digits.

macrodont (măk'rôdônt) *a.* [Gk. *makros*, large; *odous*, tooth.] With large teeth.

macro-elements,—elements required and occurring in relatively large quantities as natural constituents of living organisms or tissues; major elements, macronutrients. *Opp.* minor elements, micro-elements, trace-elements.

macroevolution (măk'rôëvölū'shün) *n.* [Gk. *makros*, large; *L. evolvere*, to unroll.] Evolutionary processes extending through geological eras; large-scale evolution of new genera and species owing to mutations resulting in marked changes in chromosome pattern and reaction system. *Opp.* microevolution.

macrogamete (măk'rôgamêt') *n.* [Gk. *makros*, large; *gametes*, spouse.] The larger of two conjugants, usually considered as equivalent to ovum or female conjugant.

macrogametocyte (măk'rôgămê'tô-sît) *n.* [Gk. *makros*, large; *gametes*, spouse; *kytos*, hollow.] The mother-cell of a macrogamete, considered female; term used mainly in connection with Protista.

macrogamy (măkrôg'ămî) *n.* [Gk. *makros*, large; *gamos*, marriage.] Syngamy between full-grown individuals of a species, as in Actinophrys; hologamy.

macroglia (măkrôglî'ă) *n. plu.* [Gk. *makros*, large; *glia*, glue.] Astrocytes or true neuroglia; astroglia and oligodendroglia.

macroGLOSSATE (măk'rôglôs'ăt) *a.* [Gk. *makros*, large; *glossa*, tongue.] Furnished with a large tongue.

macrognathic (măk'rônăth'îk) *a.* [Gk. *makros*, large; *gnathos*, jaw.] Having specially developed jaws.

macrogonidium (măk'rôgônîd'îüm) *n.* [Gk. *makros*, large; *gone*, generation; *idion*, *dim.*] A large gonidium.

macrogyne (măk'rôjînê) *n.* [Gk. *makros*, large; *gyne*, woman.] Female ant of unusually large size.

macroleucocyte (māk'rölū'kösīt, -loo-) *n.* [Gk. *makros*, large; *leukos*, white; *kytos*, hollow.] A chromophil leucocyte, developed from a proleucocyte.

macromere (māk'römēr) *n.* [Gk. *makros*, large; *meros*, part.] In cleavage of telolecithal eggs, a larger cell of lower hemisphere.

macromerozoite (māk'römērözō'īt) *n.* [Gk. *makros*, large; *meros*, part; *zoon*, animal.] One of many divisions produced by macroschizont stage of Sporozoa.

macromesentery (māk'römēs'entēri, -mēz-) *n.* [Gk. *makros*, large; *mesos*, middle; *enteron*, gut.] One of the larger complete mesenteries of Anthozoa.

macromitosome (māk'römī'tösōm) *n.* [Gk. *makros*, large; *mitos*, thread; *soma*, body.] The paranucleus, as in Lepidoptera.

macromutation (māk'römūtā'shūn) *n.* [Gk. *makros*, large; L. *mutare*, to change.] Simultaneous mutation of a number of different characters.

macromylon (māk'römī'elōn) *n.* [Gk. *makros*, long; *myelos*, marrow.] The medulla oblongata.

macronotal (māk'rōnō'tāl) *a.* [Gk. *makros*, large; *noton*, back.] With large thorax, as a queen ant.

macront (māk'rōnt) *n.* [Gk. *makros*, large; *on*, being.] The larger of two sets of cells formed after schizogony in Neosporidia, the macront giving rise to macrogametes.

macronucleocyte (māk'rōnū'klēōsīt) *n.* [Gk. *makros*, large; L. *nucleus*, kernel; Gk. *kytos*, hollow.] A leucocyte having a relatively large nucleus; chromophil leucocyte of insects.

macronucleus (māk'rōnū'klēūs) *n.* [Gk. *makros*, large; L. *nucleus*, kernel.] The larger of two nuclei in a cell, usually supposed to be of a vegetative or somatic nature; meganucleus.

macronutrients,—macro-elements.

macrophage (māk'rōfāj) *n.* [Gk. *makros*, large; *phagein*, to eat.] A large phagocytic cell, fixed or wandering; a large mononuclear leucocyte; a histiocyte, clasmato-cyte, pericyte, etc.

macrophagous (māk'rōf'ägūs) *a.* [Gk. *makros*, large; *phagein*, to eat.] Feeding on relatively large masses of food, *opp.* microphagous.

macrophyllous (māk'rōfil'ūs) *a.* [Gk. *makros*, large; *phyllon*, leaf.] Having large leaves or leaflets.

macroplankton (māk'rōplāng'ktōn) *n.* [Gk. *makros*, large; *plankton*, wandering.] The larger organisms drifting with the surrounding water, as jelly-fish, etc., *opp.* microplankton and nanoplankton.

macropodous (māk'rōp'ōdūs) *a.* [Gk. *makros*, long; *pous*, foot.] Having a long stalk, as a leaf or leaflet; having hypocotyl large in proportion to rest of embryo; long-footed.

macropterous (māk'rōp'tērūs) *a.* [Gk. *makros*, large; *pteron*, wing.] With unusually large fins or wings; fully winged, *opp.* brachypterous.

macropyrenic (māk'rōpīrē'nīk) *a.* [Gk. *makros*, large; *pyren*, fruit stone.] With nuclei markedly larger than average for the species or other group. *n.* A macropyrenic individual.

macroschizogony (māk'rōskīzōg'-ōnī) *n.* [Gk. *makros*, large; *schizein*, to cleave; *gone*, generation.] Method of multiplication of macroschizonts; schizogony giving rise to large merozoites.

macroschizont (māk'rōskīz'ōnt) *n.* [Gk. *makros*, large; *schizein*, to cleave; *on*, being.] Stage in life-cycle of certain Haemosporidia developed from sporozoite, and giving rise to macromerozoites.

macrosclereids (māk'rōsklē'rēīdz) *n. plu.* [Gk. *makros*, large; *skleros*, hard; *eidos*, form.] Relatively large columnar sclereids, as in coat of certain seeds.

macroscopic (māk'rōskōp'īk) *a.* [Gk. *makros*, large; *skopein*, to view.] Visible by the naked eye.

macrosepalous (māk'rōsēp'ālūs) *a.* [Gk. *makros*, large; F. *sepal*, sepal.] With specially large sepals.

macroseptum (māk'rōsēp'tūm) *n.* [Gk. *makros*, large; L. *septum*, inclosure.] A primary or perfect septum of Anthozoa.

macrosiphon (māk'rōsī'fōn) *n.* [Gk. *makros*, large; *siphon*, tube.] Large internal siphon of certain cephalopods.

macrosmatic (māk'rōsmāt'ik) *a.* [Gk. *makros*, large; *osme*, smell.] With well-developed sense of smell.

macrosmatous (māk'rōsō'mātūs) *a.* [Gk. *makros*, large; *soma*, body.] Possessing abnormally large body.

macrosome (māk'rōsōm) *n.* [Gk. *makros*, large; *soma*, body.] A large alveolar sphere or granule in protoplasm.

macroslanchnic (māk'rōsplāngk'-nik) *a.* [Gk. *makros*, large; *splanchnon*, entrail.] Large-bodied and short-legged.

macrosporangiphore (māk'rōspōr-ān'jiōfōr) *n.* [Gk. *makros*, large; *sporos*, seed; *angeion*, vessel; *pherein*, to bear.] A structure bearing a macrosporangium.

macrosporangium (māk'rōspōrān'-jiūm) *n.* [Gk. *makros*, large; *sporos*, seed; *angeion*, vessel.] A sporangium developing macrospores or megaspores.

macrospore (māk'rōspōr) *n.* [Gk. *makros*, large; *sporos*, seed.] A large anisospore or gamete of Sarcodina; a larger spore of heterosporous plants; embryo-sac; megaspore.

macrosporophore (māk'rōspō'rōfōr) *n.* [Gk. *makros*, large; *sporos*, seed; *pherein*, to bear.] A leafy lobe developing macrosporangia.

macrosporophyll (māk'rōspōr'ōfil) *n.* [Gk. *makros*, large; *sporos*, seed; *phyllon*, leaf.] Macrosporophore; carpel.

macrosporozyote (māk'rōspōr'ōzō'it) *n.* [Gk. *makros*, large; *sporos*, seed; *zoon*, animal.] A larger endogamous sporozyote of Sporozoa.

macrostomatous (māk'rōstōm'ātūs)

a. [Gk. *makros*, large; *stoma*, mouth.] With very large mouth.

macrostylospore (māk'rōsti'lōspōr) *n.* [Gk. *makros*, large; *stylos*, pillar; *sporos*, seed.] A large spore-like stalked body.

macrostylous (māk'rōsti'lūs) *a.* [Gk. *makros*, long; *stylos*, pillar.] With long styles.

macrotherm (māk'rōthērm) *n.* [Gk. *makros*, large; *therme*, heat.] A tropical plant; macrothermophyte, megatherm.

macrotyous (māk'rō'tūs) *a.* [Gk. *makros*, large; *ous*, ear.] With large ears.

macrotrichia (māk'rōtrik'iā) *n. plu.* [Gk. *makros*, large; *thrix*, hair.] The larger setae on body or wings of insects.

macrotype (māk'rōtip) *n.* [Gk. *makros*, large; *typos*, a type.] A modified arrangement of mesenteries containing more macromesenteries than normal microtype, in Anthozoa.

macrozoogonidium (māk'rōzō'ōgōn-id'iūm) *n.* [Gk. *makros*, large; *zoon*, animal; *gone*, generation; *idion*, dim.] A large zoogonidium.

macrozoospore (māk'rōzō'ōspōr) *n.* [Gk. *makros*, large; *zoon*, animal; *sporos*, seed.] Large motile spore.

macruric (mākroor'ik) *a.* [Gk. *makros*, long; *oura*, tail.] Long-tailed; macrural, macrurous.

macula (māk'ulā) *n.* [L. *macula*, spot.] A spot or patch of colour; a small pit or depression; a tubercle; neuroepithelial area of membranous labyrinth, as in sacculus, utriculus, ampullae, and cochlear duct.

macula cribrosa,—area on wall of vestibule of ear, perforated for passage of auditory nerve filaments.

macula germinativa,—the germinal spot, nucleolus of an ovum.

macula lutea,—yellow spot of retina, an oval yellowish area in centre of posterior part of retina at point of most perfect vision.

macular (māk'ulār) *a.* [L. *macula*, spot.] *Pert.* a macula; *pert.* macula lutea.

maculate (māk'ulāt), **maculiferous** (māk'ulif'ērūs), **maculose** (māk'ulōs) *a.* [L. *macula*, spot.] Spotted.

maculation (māk'ulā'shūn) *n.* [L. *maculare*, to spot.] The arrangement of spots on a plant or an animal.

madescant (mädēs'sēnt) *a.* [L. *madescere*, to become wet.] Becoming moist; slightly moist.

madid (mäd'id) *a.* [L. *madidus*, moist.] Moist; wet.

madrepore (mäd'rēpōr) *n.* [F. *madrēpore*—from L. *mater*, mother; Gk. *poros*, friable stone.] A branching stony coral; plate at external opening of stone canal in echinoderms.

madreporic (mäd'rēpōr'ik) *a.* [F. *madrēpore*, madreporite.] *Pert.* a madreporite or madreporite; *appl.* body, plate, tubercle, canal.

madreporic canal—hydrophonic or stone canal, *q.v.*

madreporite (madrēp'ōrit) *n.* [F. *madrēpore*, madreporite.] A flat circular or pentagonal grooved, perforated plate at end of an interambulacral area, or between two such areas in Echinoidea, or between rays in Asteroidea; a modified genital plate.

Magendie's foramen [F. *Magendie*, French physiologist]. Median aperture in roof of fourth ventricle, connecting the latter with subarachnoid cavities; metapore.

maggot (mäg'ōt) *n.* [M.E. *magot*, grub.] The worm-like insect larva, without appendages or distinct head, as that of the blow-fly.

magnum,—capitatum, *q.v.*

maiosis,—meiosis, *q.v.*

mala (mā'lā) *n.* [L. *mala*, cheek.]

Part of maxilla of some insects, of mandible of certain myriopods; part of exterior of lower jaw of birds; cheek; malar bone.

malacoid (māl'ākoid) *a.* [Gk. *mala-*

kos, soft; *eidos*, form.] Soft in texture.

malacology (māl'ākōl'ōjī) *n.* [Gk. *malakos*, soft; *logos*, discourse.] The study of molluscs.

malacophilous (māl'ākōf'ilūs) *a.* [Gk. *malakos*, soft; *philein*, to love.] Pollinated by agency of gastropods.

malacopterous (māl'ākōp'tērūs) *a.* [Gk. *malakos*, soft; *pteron*, wing.] Soft-finned.

malacostracous (māl'ākōs'trākūs) *a.* [Gk. *malakos*, soft; *ostrakon*, shell.] Soft-shelled.

Malagasy (mälägäs'i) *a.* *Appl.* or *pert.* the zoogeographical sub-region including Madagascar and adjacent islands.

malar (mā'lār) *a.* [L. *mala*, cheek-bone.] *Pert.* or in region of cheek. *n.* The jugal or zygomatic bone.

malaxation (mäläksä'shūn) *n.* [Gk. *malassein*, to soften.] Compression of mandibles, or chewing, as by wasps.

male (māl) *a.* [L. *mas*, male.] *Pert.* masculine organism; *appl.* organs of reproduction, as testes, or stamens; symbol ♂.

male pronucleus,—nucleus of spermatozoon.

malella (mälē'lā) *n.* [L. *dim.* of L. *mala*, jaw.] Distal toothed process of outer stipes of deutomala in certain Myriopoda.

malleate (mäl'eät) *a.* [L. *malleus*, hammer.] Hammer-shaped; *appl.* a type of trophi of rotifer gizzard.

malleoincudal (mäl'ēöinkū'däl) *a.* [L. *malleus*, hammer; *incus*, anvil.] *Pert.* malleus and incus of ear.

malleolar (mälē'olār) *n.* [L. *dim.* of *malleus*, hammer.] The vestigial fibula of ruminants. *a.* *Pert.* or in region of malleolus; *appl.* arteries. folds, sulcus.

malleolus (mälē'ölūs) *n.* [L. *dim.* of *malleus*, hammer.] Medial and lateral malleolus, lower extremity prolongations of tibia and fibula respectively; one of the club- or racket-shaped appendages on basal segments of hind legs of Solpugidæ.

malleoramate (mäl'ëörä'mât) *a.* [L. *malleus*, hammer; *ramus*, branch.] *Appl.* type of trophi with looped manubrium and toothed incus in rotifer gizzard.

malleus (mäl'ëüs) *n.* [L. *malleus*, hammer.] A part of rotifer masticator and gizzard; one of the chain of auditory ossicles of mammals; one of the Weberian ossicles of fishes.

mallochorion (mäl'ökör'ïön) *n.* [Gk. *mallos*, wool; *chorion*, skin.] The primitive mammalian chorion.

malloplacenta (mäl'öpläsën'ta) *n.* [Gk. *mallos*, wool; L. *placenta*, flat cake.] Non-deciduate placenta with villi evenly distributed, as in cetaceans and some ungulates.

Malpighian (mälpig'ïän) *n.* [*M. Malpighi*, Italian anatomist]. Discovered by or named after Malpighi.

Malpighian body or corpuscle,—in spleen, a nodular mass of lymphoid tissue ensheathing the smaller arteries; in kidney, a glomerulus of convoluted capillary blood-vessels enclosed in a dilatation of uriniferous tubule.

Malpighian layer,—basal layer of epidermis next to true skin; rete Malpighii.

Malpighian pyramids,—medullary pyramids of kidney.

Malpighian tubules,—thread-like excretory tubes leading into posterior part of gut of insects.

maltase (môl'täs) *n.* [A.S. *mealt*, malt.] An enzyme which converts malt-sugar into grape-sugar.

maltose (môl'tös) *n.* [A.S. *mealt*, malt.] Malt-sugar, formed from starch by ptyalin and amylase; $C_{12}H_{22}O_{11}$.

melon (mäm'ëlön) *n.* [F. *mamelon*, from L. *mamilla*, nipple.] Small pimple-like structure in centre of tubercle of echinoid interambulacral plate; papilla forming nucellus in cycads.

mamilla (mämil'ä) *n.* [L. *mamilla*, nipple.] A nipple; a nipple-shaped structure; mammilla.

mamillary bodies,—corpora mamillaria or albicantia, *q.v.*

mamillary process or tubercle,—superior tubercle connected with transverse process of lower thoracic vertebrae.

mamillate (mäm'ilät) *a.* [L. *mamilla*, nipple.] Studded with small protuberances.

mamma (mäm'ä) *n.* [L. *mamma*, breast.] Milk-secreting organ of female mammals.

mammal (mäm'äl) *n.* [L. *mamma*, breast.] An animal of a class of vertebrates of which the females suckle the young.

mammalogy (mämäl'öji) *n.* [L. *mamma*, breast; Gk. *logos*, discourse.] The study of mammals.

mammary (mäm'äri) *a.* [L. *mamma*, breast.] *Pert.* the breast; *appl.* arteries, veins, glands, tubules, etc.

mammiferous (mämif'erüs) *a.* [L. *mamma*, breast; *ferre*, to bear.] Developing mammae; milk-secreting; mammalian.

mammiform (mäm'iförm) *a.* [L. *mamma* breast; *forma*, shape.] Breast-shaped; *appl.* pileus of certain fungi.

mammilla,—mamilla, *q.v.*

mammogenic (mäm'öjën'ik) *a.* [L. *mamma*, breast; Gk. *gennaein*, to produce.] *Appl.* pi uterary hormone complex which promotes growth of the lobe-alveolar and duct systems of the mammary gland.

manchette (mänshtë') *n.* [F. *manchette*, cuff.] Membrane enveloping the cytoplasm surrounding the axial filament of a spermatid; armilla or superior annulus in certain fungi.

mandible (män'dibl) *n.* [L. *mandibulum*, jaw.] The lower jaw of vertebrates, either a single bone or composed of several; a paired mouth appendage of arthropods; mandibulum.

mandibular (mändib'ülär) *a.* [L. *mandibulum*, jaw.] *Pert.* the lower jaw; *appl.* arch, canal, foramen, fossa, nerve, notch.

mandibulate (mändib'ülät) *a.* [L. *mandibulum*, jaw.] Having a lower jaw; having functional jaws; having mandibles.

mandibuliform (mändib'üliförm) *a.* [L. *mandibulum*, jaw; *forma*, shape.] Resembling, or used as a mandible; *appl.* certain insect maxillae.

mandibulohyoid (mändib'ülöhí'oid) *a.* [L. *mandibulum*, jaw; Gk. *hyoeides*, T-shaped.] In region of mandible and hyoid.

mandibulomaxillary (mändib'ülö-mäksil'ári) *a.* [L. *mandibulum*, jaw; *maxilla*, jaw.] *Pert.* maxillae and mandibles of arthropods.

manducation (männ'düka'shün) *n.* [L. *manducare*, to chew.] Chewing; mastication.

manicate (männ'ikāt) *a.* [L. *manicatus*, sleeved.] Covered with entangled hairs or matted scales.

manna (männ'ä) *n.* [Gk. *manna*, manna.] Hardened exudation of bark of certain trees; honey-dew secreted by certain Coccidae.

mannose (männ'ös) *n.* [Gk. *manna*, manna.] A sugar of various plants; $C_6H_{12}O_6$.

manocyst (mä'nösist) *n.* [L. *manare*, to proceed from; Gk. *kystis*, pouch.] A receptive oogonial papilla reaching the antheridium, as in *Phytophthora*.

manoxylic (mänözi'lik) *a.* [Gk. *manos*, slack; *xylon*, wood.] Having soft loose wood, as Cycadales. *Opp.* pycnoxylic.

mantle (männ'tl) *n.* [L. *mantellum*, cloak.] Outer soft fold of integument next shell of molluscs; pallium; sheath of spongioblast cells; body-wall of ascidians; scapulars and wing coverts of birds; ocrea, *q.v.*

mantle cavity,—a space between the mantle and body proper.

mantle cell,—a cell of tapetum or investing tissue of a sporangium.

mantle fibres,—the spindle-fibres of a fully formed spindle.

mantle layer,—a layer of embryonic medulla spinalis representing the future gray columns.

mantle lobes,—dorsal and ventral flaps of mantle in bivalves.

manual (männ'üäl) *n.* [L. *manus*,

hand.] A wing-quill borne on manus of birds; remex primarius, primary feather.

manubrial (mänü'briäl) *a.* [L. *manubrium*, handle.] *Pert.* a manubrium; handle-shaped.

manubrium (mänü'briüm) *n.* [L. *manubrium*, handle.] A cell projecting inwards from shield of an antheridial globule of thallophytes; a hypostome or conical elevation at distal end of a hydrozoan polyp; clapper-like portion hanging down from under surface of medusae; handle-like part of malleus of ear; handle of malleus of mastax; presternum or anterior part of sternum; basal part of furcula in Collembola.

manus (männ'üs) *n.* [L. *manus*, hand.] Hand, or part of fore-limb corresponding to it, as found in vertebrates from Amphibia onwards.

manyplices,—omasum or psalterium, third chamber of stomach of ruminants—so-called from its folded structure.

marcescent (märsés'ént) *a.* [L. *marcescere*, to wither.] Withering but not falling off; *appl.* a calyx or corolla persisting after fertilisation.

marcid (mär'sid) *a.* [L. *marcidus*, withered.] Withered; shrivelled.

marginal (mär'jinäl) *a.* [L. *margo*, edge.] *Pert.* at or near the margin, edge, or border; *appl.* veil, a secondary growth of edge of pileus, in agarics and boletes; *appl.* a form of nervation; *appl.* a convolution of frontal lobe; *appl.* a type of placenta; *appl.* plates round margin of chelonian carapace.

marginalia (mär'jinä'liä) *n. plu.* [L. *margo*, edge.] Prostalia or defensive spicules on body surface round osculum.

marginate (mär'jinät) *a.* [L. *margo*, edge.] Having a distinct margin in structure or colouring.

marginella (mär'jinél'ä) *n.* [*Dim.* of L. *margo*, edge.] Ring formed by part of cutis proliferating beyond margin of lamellae, in certain fungi with an exposed hymenium.

marginicidal (mâr'jinîsî'dål) *a.* [L. *margo*, edge; *caedere*, to cut.] Dehiscing by line of union of carpels.

marginiform (mâr'jinîfôrm) *a.* [L. *margo*, edge; *forma*, shape.] Like a margin or border in appearance or structure.

marginirostral (mâr'jinîrôs'trål) *a.* [L. *margo*, edge; *rostrum*, beak.] Forming the edges of a bird's bill.

marita (mârî'tâ, marê'tâ) *n.* [L. *maritus*, conjugal.] Sexually mature stage in helminth life history.

marital (mâr'itål) *a.* [L. *maritus*, conjugal.] *Pert.* marita; producing fertilised eggs, *appl.* trematodes.

marker,—an identifying factor; a gene of known location and effect which makes possible the determination of the distribution of other, less conspicuously effective, genes.

marmorate (mâr'môrât) *a.* [L. *marmor*, marble.] Of marbled appearance.

marrow (mâr'ô) *n.* [A.S. *mearg*, pith.] Connective tissue filling up cylindrical cavities in bodies of long bones, and spaces of cancellous tissue, differing in composition in different bones; medulla ossium; pith of certain plants; vegetable marrow.

marrow-brain,—myelencephalon.

marsupial (mârsû'piål) *a.* [L. *marsupium*, pouch.] *Pert.* a marsupium; pouch-bearing, as a kangaroo; *appl.* bones of pelvic girdle in certain mammals.

marsupium (mârsû'piüm) *n.* [L. *marsupium*, pouch.] Any pouch-like structure in which the young of an animal complete their development, such as abdominal pouch of marsupials; gill cavities of bivalves; recess formed by diverging spines and a supporting membrane in stelleroids; structure protecting the acrocyst in Sertularia; a nursing-sac surrounding certain archegonia.

Martinotti cells,—pyramidal nerve-cells of cerebral cortex, with axons

directed to the peripheral plexiform or molecular layer.

mask (mâsk) *n.* [F. *masque*, mask.] A hinged prehensile structure, corresponding to adult labium, peculiar to dragon-fly nymph.

masked (mâs'kd) *a.* [F. *masque*, mask.] Personate, *appl.* corolla; concealed, *appl.* fat of cell which is not evident microscopically.

massa intermedia,—grey matter connecting thalami across third ventricle; middle commissure.

masseter (mâsê'tër) *n.* [Gk. *maseter*, one that chews.] Muscle which raises lower jaw and assists in chewing.

masseteric (mâs'ëtër'ik) *a.* [Gk. *masseter*, one that chews.] *Pert.* or near masseter muscle of cheek; *appl.* artery, vein, nerve.

massive (mâs'iv) *a.* [L. *massa*, mass.] Bulky; heavy; compacted; *appl.* nuclei deficient in nuclear sap.

massula (mâs'ülâ) *n.* [L. *massula*, small mass.] A mass of microspores in a sporangium of certain pteridophytes; a massed group of microspores in orchids.

mast cells,—spheroid or ovoid cells of very granular protoplasm, numerous in connective tissue where fat is being laid down; Mastzellen of Ehrlich.

mastax (mâs'tâks) *n.* [Gk. *mastax*, jaws.] The gizzard or pharyngeal mill of rotifers.

mastication (mâs'tikâ'shün) *n.* [L. *masticare*, to chew.] Process of chewing food with teeth till reduced to small pieces or to a pulp.

masticatory stomach,—the gastric mill or stomodaeal apparatus of crustaceans, for grinding and straining food material.

mastidion (mâstîd'îön) *n.* [Gk. *mastos*, breast; *idion*, dim.] Nipple-like protuberance on paturon, in some spiders.

mastigium (mâstij'ium) *n.* [Gk. *mastigion*, little whip.] Defensive posterior lash of certain larvae.

mastigobranchia (mâstigôbrâng'kîä) *n.* [Gk. *mastix*, whip;

brangchia, gills.] Epipodite of adult Decapoda, a bilobed membranous lamina extending upwards between gills.

mastigosome (măstī'gösöm') *n.* [Gk. *mastix*, whip; *soma*, body.] A blepharoplast.

mastoid (măs'toid) *a.* [Gk. *mastos*, breast; *eidōs*, form.] Nipple-shaped; *appl.* a process of temporal bone, cells, foramen, fossa, notch.

mastoideosquamous (mästoid'ëö-skwā'mūs) *a.* [Gk. *mastos*, breast; *eidōs*, like; *L. squama*, scale.] *Pert.* mastoid and squamous parts of temporal bone.

mastoidohumeralis (mästoid'öhū-mērā'lis) *a.* [Gk. *mastos*, breast; *eidōs*, like; *L. humerus*, humerus.] A muscle of certain quadrupeds, connecting mastoid and humerus.

masto-occipital (măs'tō-öksip'itäl) *a.* [Gk. *mastos*, breast; *L. occiput*, occiput.] *Pert.* occipital bone and mastoid process of temporal.

mastoparietal (măs'töpāri'etäl) *a.* [Gk. *mastos*, breast; *L. paries*, wall.] *Pert.* parietal bone and mastoid process of temporal.

mastotympanic (măs'tötimpān'ik) *a.* [Gk. *mastos*, breast; *tympanon*, drum.] *Appl.* part of tympanic cavity's boundary in certain reptiles.

mating types,—groups, the individuals of which do not conjugate with individuals of other groups, as of ciliates.

matriclinous (măt'rikli'nūs) *a.* [*L. mater*, mother; *Gk. klinein*, to bend.] With hereditary characteristics more maternal than paternal; matroclinic, matroclinal.

matrix (măt'riks) *n.* [*L. mater*, mother.] Ground substance of connective tissue; part beneath body and root of nail; uterus; body upon which lichen or fungus grows; envelope of chromatid; substance in which a fossil is embedded.

matroclinal,—matriclinous, *q.v.*

mattula (măt'ülä) *n.* [*L. matta*, mat.] Fibrous network covering petiole bases of palms.

maturation (măt'ürä'shün) *n.* [*L. maturus*, ripe.] Ripening; completion of germ-cell development, consisting of reduction of chromatin; meiosis, reduction of chromosomes from somatic or diploid to genetic or haploid number.

Mauthner's cells [*L. Mauthner*, Austrian physician]. A layer between medullary sheath and neurolemma of nerve fibre.

maxilla (mäksil'ä) *n.* [*L. maxilla*, jaw.] The upper jaw; part of upper jaw behind premaxilla; an appendage of most arthropods, posterior to mandible, modified in various ways in adaptation to function and requirements.

maxillary (mäksil'äri) *a.* [*L. maxilla*, jaw.] *Pert.* or in region of maxilla or upper jaw; *appl.* artery, nerve, process, sinus, tuberosity, vein, etc.

maxillary glands,—paired renal organs opening at base of maxilla in Crustacea.

maxilliferous (mäk'sillif'ërüs) *a.* [*L. maxilla*, jaw; *ferre*, to carry.] Bearing maxillae.

maxilliform (mäksil'iförm) *a.* [*L. maxilla*, jaw; *forma*, shape.] Like a maxilla.

maxilliped (mäksil'ipäd) *n.* [*L. maxilla*, jaw; *pes*, foot.] An appendage, in one, two, or three pairs, posterior to maxillae in arthropods; also maxilliped.

maxillojugal (mäksil'öjoo'gäl) *a.* [*L. maxilla*, jaw; *jugum*, yoke.] *Pert.* jaw and jugal bone.

maxillolabial (mäksil'ölä'bäl) *a.* [*L. maxilla*, jaw; *labium*, lip.] *Pert.* maxilla and labium; *appl.* dart in ticks.

maxillomandibular (mäksil'ömändib'ülär) *a.* [*L. maxilla*, jaw; *mandibulum*, jaw.] *Appl.* arch forming jaws of primitive fishes; *pert.* maxilla and mandible.

maxillopalatal (mäksil'öpäl'ätäl) *a.* [L. *maxilla*, jaw; *palatus*, palate.]

Pert. jaw and palatal bones; *appl.* a maxillary process of birds; maxillopalatine.

maxillopharyngeal (mäksil'öfärl'n-jěäl) *a.* [L. *maxilla*, jaw; Gk. *pharyngx*, gullet.] *Pert.* lower jaw and pharynx.

maxillopremaxillary (mäksil'öprē-mäksil'ärl) *a.* [L. *maxilla*, jaw; *pre*, before.] *Pert.* whole of upper jaw; *appl.* jaw when maxilla and premaxilla are fused.

maxilloturbinal (mäksil'ötür'bīnäl) *a.* [L. *maxilla*, jaw; *turbo*, whorl.] *Pert.* maxilla and turbinals. *n.* A bone arising from lateral wall of nasal cavity, which supports sensory epithelium.

maxillula (mäksil'ülä) *n.* [L. *dim.* of *maxilla*, jaw.] A first maxilla in Crustacea when there are more pairs than one; an appendage between mandible and first maxilla in primitive insects.

maxim (mäk'sim) *n.* [L. *maximus*, greatest.] An ant of the large worker type or of the soldier caste, *opp.* minim.

mazaedium (mäžē'diüm) *n.* [Gk. *maza*, cake; *idion*, *dim.*] A coat formed by ends of paraphyses and their secretions, covering hymenium of certain Ascomycetes; a fruit-body of certain lichens; mazedium.

mazic (mä'zik) *a.* [Gk. *maza*, cake.] Placental; *pert.* placenta.

M-chromosome, — a microchromosome; or, a mediocentric chromosome.

M-disc, — a line in middle of Hensen's line, *q.v.*

meatus (mēä'tūs) *n.* [L. *meatus*, passage.] A passage or channel, as acoustic, nasal, etc.

mechanism (mēk'änizm) *n.* [Gk. *mechane*, machine.] The view that all vital phenomena are due to physical and chemical laws.

mechanocyte (mēk'änösf) *n.* [Gk. *mechane*, contrivance; *kytos*, hollow.] A cell derived from bone, cartilage, connective tissue, tendon,

or muscle; a supporting cell; a fibrocyte.

mechanoreceptor (mēk'änörēsēp'tör) *n.* [Gk. *mechane*, contrivance; L. *recipere*, to receive.] A specialised structure sensitive to contact, pressure, or gravity.

Meckel's cartilage or rod [J. F. Meckel, junior, German anatomist]. The lower jaw of lower vertebrates, and in higher vertebrates, the axis round which membrane bones of jaw are arranged and formed.

Meckel's ganglion [J. F. Meckel, senior, German anatomist]. The sphenopalatine ganglion.

meconidium (mē'kōnid'iüm) *n.* [Gk. *mekon*, poppy; *idion*, *dim.*] Sessile or pedicellate extracapsular medusa usually lying on top of gonangium of certain hydroids.

meconium (mēkō'nīüm) *n.* [Gk. *mekon*, poppy.] Waste products of a pupa or other embryonic form; contents of intestine of a new-born mammal.

media (mē'diä) *n.* [L. *medius*, middle.] A middle structure, such as a layer of tissue, a central nervure; *plu.* mediae. *Plu.* of medium.

mediad (mē'diäd) *adv.* [L. *medius*, middle; *ad*, to.] Towards but not quite in the middle line or axis.

medial (mē'diäl) *a.* [L. *medius*, middle.] Situated in the middle. *n.* The middle vein of wing of insects.

median (mē'diän) *a.* [L. *medius*, middle.] Lying or running in axial plane; intermediate; middle. *n.* The middle variate when variates are arranged in order of magnitude.

median nerve, — nerve arising from union of medial and lateral cord of brachial plexus, with branches in forearm.

mediastinal (mē'diästī'näl) *a.* [L. *mediastinus*, medial.] *Pert.* or in region of mediastinum; *appl.* cavity, arteries, glands, pleura.

mediastinum (mē'diästī'nüm) *n.* [L. *mediastinus*, medial.] Space

between right and left pleura in and near median sagittal thoracic plane; incomplete vertical septum of testis, Highmore's body.

mediator (mē'diātōr) *n.* [L. *medius*, middle.] A nerve cell maintaining relation between receptor and effector; amboceptor.

mediocentric (mē'diōsēn'trīk) *a.* [L. *medius*, middle; *centrum*, centre.] Having a medial, or mediad, centromere; *appl.* chromosome.

Medio-Columbian,—Sonoran, *q.v.*

mediocubital (mē'diōkū'bital) *n.* [L. *medius*, middle; *cubitalis*, of elbow.] A cross-vein between posterior media and cubitus of insect wing.

mediodorsal (mē'diōdōr'sāl) *a.* [L. *medius*, middle; *dorsum*, back.] In the dorsal middle line.

mediopalatine (mē'diōpāl'ātin) *a.* [L. *medius*, middle; *palatus*, palate.] Between palatal bones; *appl.* a cranial bone of some birds.

mediopectoral (mē'diōpēk'tōrāl) *a.* [L. *medius*, middle; *pectus*, breast.] *Appl.* middle part of sternum.

mediostapedial (mē'diōstāpē'diāl) *n.* [L. *medius*, middle; *stapes*, stirrup.] *Pert.* that portion of columella auris external to stapes.

mediotarsal (mē'diōtār'sāl) *a.* [L. *medius*, middle; *tarsus*, ankle.] Between tarsal bones.

medioventral (mē'diōvēn'trāl) *a.* [L. *medius*, middle; *venter*, belly.] In the middle ventral line.

mediproboscis (mē'diōprōbōs'is) *n.* [L. *medius*, middle; Gk. *proboskis*, trunk.] Middle portion of insect proboscis, part of ligula.

medithorax (mē'dithō'rāks) *n.* [L. *medius*, middle; Gk. *thorax*, chest.] Middle part of the thorax; the mesothorax of insects.

medium (mē'diūm) *n.* [L. *medium*, middle.] Any of the structures through which a force acts, as refracting media of eye-ball; substance in which cultures are reared or tissues propagated.

medulla (mēdūl'ā) *n.* [L. *medulla*, marrow, pith.] Marrow of bones; central part of an organ or tissue; pith or central portion of stem.

medulla oblongata, — posterior portion of brain continuous with medulla spinalis or spinal cord.

medullary (mēdūl'āri) *a.* [L. *medulla*, pith.] *Pert.* or in region of medulla; *appl.* axis, artery, lamina, membrane, bone, spaces, canal, etc.

medullary canal,—hollow cylindrical portion of a long bone containing marrow; the neurocoel; neural tube.

medullary groove,—a groove on surface of medullary plate, bounded by folds which grow and coalesce, converting groove into a canal, the neurocoel.

medullary keel,—a downward growth towards archenteron, the rudiment of central nervous system in development of certain primitive vertebrates.

medullary layer,—a thick sub-cortical layer of the thallus of some lichens.

medullary membrane,—lining of cavity in long bones; endosteum, internal periosteum.

medullary phloem, — internal phloem in a bicollateral bundle, as in Cucurbitaceae.

medullary plate,—plate-like formation of ectoderm cells bordering blastopore of early embryo; neural plate, earliest rudiment of nervous system.

medullary rays — a number of strands of connective tissue extending between pith and pericycle.

medullary sheath,—a ring of protoxylem round pith of certain stems; a layer of white substance, composed of myelin, surrounding axis cylinder of medullated nerve-fibre.

medullary velum,—valve of Vieussens, *q.v.*

medullated (mēdūlātēd) *a.* [L. *medulla*, pith.] Provided with pith, or with a medullary sheath.

medullated nerve-fibres,—fibres of brain and spinal cord, consisting of axis-cylinder or neuraxis of primitive fibrillae, surrounded by medullary sheath, in turn covered by delicate neurilemma.

medulliblasts (mëdül'íblásts) *n. plu.* [L. *medulla*, marrow; Gk. *blastos*, bud.] Cells of embryonic nervous tissue which give rise to neuroblasts and spongioblasts.

medullispinal (mëdül'íspí'nál) *a.* [L. *medulla*, pith; *spina*, spine.] Of the spinal cord.

medusa (mëdú'sá) *n.* [Gk. *Medousa*, one who rules.] A jelly-fish.

medusiform (mëdú'síförm) *a.* [Gk. *Medousa*, Medusa; L. *forma*, shape.] Like a medusa or jelly-fish.

medusoid (mëdú'soid) *n.* [Gk. *Medousa*, Medusa; *eidos*, like.] A medusa - like free - swimming gonophore of Hydrozoa. *a.* Like a jelly-fish or medusa.

medusome (mëdú'söm) *n.* [Gk. *Medousa*, Medusa; *soma*, body.] Medusoid stage in life-history of Obelia.

mega,—also see macro.

megacephalic (mëg'ákëfál'ík, -sëf-) *a.* [Gk. *megas*, large; *kephale*, head.] With abnormally large head; having a cranial capacity of over 1450 c.c.; *cf.* mesocephalic, microcephalic.

megagamete (mëg'ägämët') *n.* [Gk. *megas*, large; *gametes*, spouse.] A rounded cell regarded as an ovum or its equivalent, developed from a megagametocyte after a process akin to maturation; macrogamete.

megagametocyte (mëg'ägämët'ösit) *n.* [Gk. *megas*, large; *gametes*, spouse; *kytos*, hollow.] A cell developed from a merozoite, and itself giving rise to a megagamete.

megagametogenesis (mëg'ägämët'otjën'ësis) *n.* [Gk. *megas*, great; *gametes*, spouse; *genesis*, descent.] Development of megagametes or ova.

megagametophyte (mëg'ägämët'tö-fit) *n.* [Gk. *megas*, large; *gametes*,

spouse; *phyton*, plant.] The female gametophyte developed from a megaspore, *opp.* microgametophyte.

megakaryocyte (mëg'ákär'íosit) *n.* [Gk. *megas*, large; *karyon*, nut; *kytos*, hollow.] An amoeboid giant cell of bone-marrow, with one large annular lobulated nucleus, containing a number of nucleoli.

megalaesthetes (mëg'älësthët'ëz) *n. plu.* [Gk. *megalon*, great; *aisthetes*, perceiver.] Sensory organs, sometimes in form of eyes, in Placophora.

megalecithal,—see megalolecithal.

megaloblast (mëg'älöblást) *n.* [Gk. *megalos*, greatly; *blastos*, bud.] A primitive large erythroblast.

megalogonidium (mëg'älögöníd'ium) *n.* [Gk. *megalos*, greatly; *gonos*, offspring; *idion*, *dim.*] A large gonidium.

megalecithal (mëg'älölës'ithäl) *a.* [Gk. *megalos*, greatly; *lekithos*, yolk.] Containing much yolk, as telolecithal eggs; megalecithal.

megalopic (mëg'älöp'ík) *a.* [Gk. *megalos*, greatly; *ops*, eye.] Belonging to the megalops stage.

megalopore (mëg'älöpör) *n.* [Gk. *megalon*, great; *poros*, channel.] Pore in dorsal plates of Chiton, for placing a megalaesthete in direct communication with exterior.

megalops (mëg'älöps) *n.* [Gk. *megalos*, greatly; *ops*, eye.] A larval stage of certain Crustacea, as crabs, conspicuous by large stalked eyes; megalopa.

megalospheric (mëg'älösfër'ík) *a.* [Gk. *megalos*, greatly; *sphaira*, globe.] Of polythalamous foraminifer shells, having a megalosphere or large initial chamber; megaspheric.

megamere (mëg'amër) *n.* [Gk. *megas*, large; *meros*, part.] One of the large cells formed after primary divisions of a developing ovum.

megameric (mëg'amër'ík) *a.* [Gk. *megas*, large; *meros*, part.] With relatively large parts; *appl.* chromosomes with large heterochromatic regions; *pert.* megameres.

meganephridia (mĕg'ănĕfrîd'îă) *n. plu.* [Gk. *megas*, large; *nephros*, kidney; *idion*, *dim.*] Large nephridia, occurring as one pair per segment; holonephridia.

meganucleus (mĕg'ănû'klĕūs) *n.* [Gk. *megas*, large; *L. nucleus*, kernel.] The larger or vegetative nucleus of infusoria; macronucleus; trophonucleus.

megaphanerophyte (mĕg'ăfăn'ērō-fit) *n.* [Gk. *megas*, large; *phaneros*, manifest; *phyton*, plant.] Tree exceeding 30 metres in height.

megaphyllous (mĕg'ăfil'ūs) *a.* [Gk. *megas*, large; *phyllon*, leaf.] Having relatively large leaves.

megasclere (mĕg'ăsklĕr) *n.* [Gk. *megas*, large; *skleros*, hard.] Skeletal spicule of general supporting framework of sponges. *Opp.* microscelere.

megasome,—macrosome, *q.v.*

megasorus (mĕg'ăsō'rūs) *n.* [Gk. *mega*, large; *soros*, heap.] A sorus containing megasporangia, *opp.* microsorus.

megasporangium (mĕg'ăspōrăn'-jĭŭm) *n.* [Gk. *megas*, large; *sporos*, seed; *anggeion*, vessel.] A macrospore-producing sporangium; ovule.

megaspore (mĕg'ăspōr) *n.* [Gk. *megas*, great; *sporos*, seed.] A larger-sized spore of dimorphic forms in reproduction by spore-formation; larger spore of heterosporous plants, regarded as female; gynospore; embryo-sac cell of seed plant; macrospore.

megasporocyte (mĕg'ăspōr'ōsīt) *n.* [Gk. *megas*, large; *sporos*, seed; *kytos*, hollow.] The embryo-sac mother-cell, diploid cell in ovary that undergoes meiosis, producing four haploid megaspores.

megasporophyll (mĕg'ăspōr'ōfil) *n.* [Gk. *megas*, great; *sporos*, seed; *phyllon*, leaf.] A spore-bearing leaf developing megasporangia; carpel.

megatherm (mĕg'ăthĕrm) *n.* [Gk. *megas*, great; *therme*, heat.] A tropical plant; a plant requiring moist heat.

megazoid (mĕg'ăzō'oid) *n.* [Gk. *megas*, great; *zoon*, animal; *eidos*, form.] The larger zoid resulting from binary or other fission.

megazoospore (mĕg'ăzō'ōspōr) *n.* [Gk. *megas*, great; *zoon*, animal; *sporos*, seed.] A large zoospore, as in reproduction of certain Radiolaria; a zoogonidium of certain Algae.

megistotherm (mĕj'istōthĕrm, mĕg-) *n.* [Gk. *megistos*, greatest; *therme*, heat.] A plant that thrives at a more or less uniformly high temperature.

Mehlis' glands,—acinous glands surrounding the ootype; shell gland of trematodes.

Meibomian glands [*H. Meibom*, German anatomist]. The tarsal glands, modified sebaceous glands of the eyelids, the ducts opening on the free margins.

meiocyte (mī'ōsīt) *n.* [Gk. *meion*, smaller; *kytos*, hollow.] A reproductive cell prior to meiosis; auxocyte, *q.v.*

meiogenic (mī'ōjĕn'ĭk) *a.* [Gk. *meion*, smaller; *gene*, descent.] Promoting nuclear division.

meiogyrous (mī'ōjĭ'rūs) *a.* [Gk. *meion*, less; *gyros*, circle.] Slightly coiled inwards.

meiolecithal (mī'ōlĕs'ĭthāl) *a.* [Gk. *meion*, less; *lekithos*, yolk.] Having little yolk, as homolecithal and isolecithal eggs.

meiomer (mīōm'ĕrĭ) *n.* [Gk. *meion*, smaller; *meros*, part.] Condition of having fewer than the normal number of parts.

meiophyll (mī'ōfil'ĭ) *n.* [Gk. *meion*, smaller; *phyllon*, leaf.] Suppression of one or more leaves in a whorl.

meiosis (mīō'sĭs) *n.* [Gk. *meion*, smaller.] Process of reduction division of germ-cell chromosomes from diploid to haploid number at maturation; also maiosis.

meiosporangium (mī'ōspōrăn'jĭŭm) *n.* [Gk. *meion*, less; *sporos*, seed; *anggeion*, vessel.] A thick-walled diploid sporangium, producing haploid zoospores; *cf.* mitosporangium.

meiospore (mí'öspör) *n.* [Gk. *meion*, less; *sporos*, seed.] A uninucleate haploid zoospore produced in a meiosporangium; *cf.* mitospore.

meiostemonous (mí'östēm'önūs) *a.* [Gk. *meion*, smaller; *stemon*, spun thread.] Having fewer stamens than petals or sepals.

meiotaxy (mí'öták'sí) *n.* [Gk. *meion*, smaller; *taxis*, arrangement.] Suppression of whorl or set of organs.

meiotherm (mí'öthērm) *n.* [Gk. *meion*, less; *therme*, heat.] A plant that thrives in a cool-temperate environment.

meiotic (míöt'ík) *a.* [Gk. *meion*, smaller.] *Appl.* reduction division; *pert.* meiosis.

Meissner's corpuscles [*G. Meissner*, German histologist]. Tactile corpuscles, associated with sense of pain, in skin of digits, lips, nipple, and certain other areas.

Meissner's plexus, a gangliated plexus of nerve fibres in submucous coat of small intestine.

melanin (mēl'ānín) *n.* [Gk. *melas*, black.] Black or dark-brown pigment; *cf.* eumelanin, phaeomelanin, dopa, haemozoin; $C_{77}H_{98}O_{33}N_{14}S$.

melaniridosome (mēl'ānīr'idōsōm) *n.* [Gk. *melas*, black; *iris*, rainbow; *soma*, body.] A pigment body consisting of a melanophore and associated iridocytes in corium of fishes.

melanism (mēl'ānizm) *n.* [Gk. *melas*, black.] Excessive development of black pigment.

melanoblast (mēl'ānōblāst) *n.* [Gk. *melas*, black; *blastos*, bud.] A cell of rete mucosum giving rise to melanin formation in the Malpighian layer of epidermis.

melanocyte (mēl'ānōsīt) *n.* [Gk. *melas*, black; *kytos*, hollow.] A black pigmented lymphocyte.

melanocyte-stimulating hormone, —intermedin; MSH.

melanogenesis (mēl'ānōjēn'ēsīs) *n.* [Gk. *melas*, black; *genesis*, origin.] The formation of melanin.

melanophore (mēl'ānōfōr) *n.* [Gk. *melas*, black; *pherein*, to bear.] A black pigment cell.

melanosoma (mēl'ānōsō'mā) *n.* [Gk. *melas*, black; *soma*, body.] Dark, pigment mass associated with ocellus, as in certain Dinoflagellata.

melanospermous (mēl'ānōspēr'mūs) *a.* [Gk. *melas*, black; *sperma*, seed.] *Appl.* seaweeds with dark-coloured spores.

melanotic (mēl'ānōt'ík) *a.* [Gk. *melas*, black.] Having black pigment unusually developed.

meliphagous (mēlif'āgūs) *a.* [Gk. *meli*, honey; *phagein*, to eat.] Feeding on honey; mellivorous.

melliferous (mēlif'ērūs) *a.* [L. *mel*, honey; *ferre*, to carry.] Honey-producing.

mellisugent (mēl'isū'jēnt) *a.* [L. *mel*, honey; *sugere*, to suck.] Honey-sucking.

mellivorous (mēliv'ōrūs) *a.* [L. *mel*, honey; *vorare*, to devour.] Honey-eating; meliphagous.

member (mēm'bēr) *n.* [L. *membrum*, member.] A limb or organ of the body; a well-defined part or organ of a plant.

membrana (mēmbrā'nā) *n.* [L. *membrana*, membrane.] A thin film, skin, or layer of tissue covering a part of animal or plant; a thin covering of cells or of unicellular organisms; a membrane.

membranaceous (mēm'brānā'sēūs) *a.* [L. *membrana*, membrane.] Of the consistency, or having the structure, of a membrane.

membrane bone,—a bone developing directly in membrane without passing through a cartilage stage.

membranella (mēm'brānēl'ā) *n.* [L. *membrana*, membrane.] An undulating membrane formed by fusion of rows of cilia, in some protozoa; ciliated band, in tornaria.

membraniferous (mēm'brānīf'ērūs) *a.* [L. *membrana*, membrane; *ferre*, to carry.] Enveloped in or bearing a membrane.

membranoid (mēm'brānoid) *a.* [Gk. *membrana*, membrane; *eidōs*, form.] Resembling a membrane.

membranous (mēm'brānūs) *a.* [L. *membrana*, membrane.] Resembling or consisting of membrane; pliable and semitransparent.

membranous cranium,—a mesenchymal investment enclosing brain.

membranous labyrinth,—internal ear, separated from bony cavities by perilymph, and itself containing endolymph.

membranous vertebral column,—continuous sheath of mesoderm enveloping notochord and neural tube.

membranula (mēmbrān'ulā) *n.* [L. *dim.* of *membrana*, membrane.] A concrescence of cilia, as in certain infusoria.

membranule (mēm'brānūl) *n.* [L. *dim.* of *membrana*, membrane.] A small opaque space close to body of insect, in anal area of wing of some dragonflies.

menacme (mēnāk'mē) *n.* [Gk. *men*, month; *akme*, prime.] The interval between first and final menstruation; life between menarche and menopause.

menadione,—vitamin K₃, present in green vegetables and other foods, essential to formation of prothrombin; C₁₁H₈O₂.

menarche (mēnār'kē) *n.* [Gk. *men*, month; *arche*, beginning.] First menstruation; age at first menstruation.

Mendelian,—*pert.* character which behaves according to results of Mendel's law, manifesting allelomorph inheritance.

Mendelian population,—a group of interbreeding individual organisms, a species being the most extensive.

Mendelism,—a law or rule governing inheritance of characters in plants and animals, discovered by *Gregor Mendel*. This principle deals with inheritance of 'unit characters,' presence or absence of one or other of a pair of contrasting characters, dominant and recessive. It also shows that offspring of organisms with a pair of contrasting characters

will exhibit these in a definite ratio, and it is extended to deal with groups of characters.

meningeal (mēnin'jēāl) *a.* [Gk. *meningx*, membrane.] *Pert.* or in region of meninges; *appl.* arteries, veins, nerves, etc.

meninges (mēnin'jēz) *n. plu.* [Gk. *meningx*, membrane.] The three membranes enclosing brain and spinal cord, from without inwards: dura mater, arachnoid, and pia mater.

meningocyte (mēning'gōsīt) *n.* [Gk. *meningx*, membrane; *kytos*, hollow.] A phagocytic cell of the subarachnoid space.

meningosis (mēn'inggō'sis) *n.* [Gk. *meningx*, membrane.] Attachment by means of membranes.

meningospinal (mēning'gōspī'nāl) *a.* [Gk. *meningx*, membrane; L. *spina*, spine.] *Pert.* spinal cord membranes.

meninx,—*sing.* of meninges.

meninx primaria,—membrane representing dura mater, as in Anura.

meninx primitiva,—a single membrane surrounding the central nervous system, as in Cyclostomata and Elasmobranchii.

meninx secundaria,—a pigmented membrane representing pia mater and arachnoid, as in Anura.

meniscus (mēnis'kūs) *n.* [Gk. *meniskos*, small moon.] Interarticular fibro-cartilage found in joints exposed to violent concussion; semilunar cartilage; intervertebral disc; a tactile disc, being terminal expansion of axis cylinder in tactile corpuscles. *Plu.* menisci.

menopause (mē'nōpōz) *n.* [Gk. *men*, month; *pausi*, ending.] Climacterical cessation of menstruation. *Cf.* climacteric.

menotaxis (mēn'ōtāk'sis) *n.* [Gk. *menein*, to remain; *taxis*, arrangement.] Compensatory movements to maintain a given direction of body axis in relation to sensory stimuli; maintenance of visual axis during locomotion.

mensa (mēn'sā) *n.* [L. *mensa*, table.] Chewing surface of tooth.

menses (mĕn'sēz) *n. plu.* [L. *menses*, months.] The fluid discharged during menstruation; catamenia.

menstrual (mĕn'strooăl) *a.* [L. *menstrualis*, monthly.] Monthly; catamenial: of or *pert.* menses; lasting for a month, as flower.

menstruation (mĕn'strooă'shün) *n.* [L. *mensis*, month; *struere*, to flow.] Periodic discharge from uterus of various vertebrates, chiefly higher mammals.

mental (mĕn'täl) *a.* [L. *mentum*, chin.] *Pert.* or in region of chin; *appl.* foramen, nerve, spines, tubercle, muscle; *appl.* scale or plate of fish and of reptile; *pert.* mentum of insects. [L. *mens*, mind.] *Pert.* the mind.

mentigerous (mĕntij'ērüs) *a.* [L. *mentum*, chin; *gerere*, to carry.] Supporting or bearing the mentum.

mentomeckelian (mĕn'tömĕkĕ'liän) *a.* [L. *mentum*, chin; *J. F. Meckel*, junior, German anatomist]. *Appl.* a cartilage bone, present in a few lower vertebrates, at either side of mandibular symphysis.

mentum (mĕn'tüm) *n.* [L. *mentum*, chin.] The chin; medial part of gnathochilarium in Diplopoda; region of labium between prementum and submentum in insects; projection between head and foot of some gastropods.

mere (mĕr) *n.* [Gk. *meros*, part.] A part; a blastomere, *q.v.*

mericarp (mĕr'ikärp) *n.* [Gk. *meris*, part; *karpōs*, fruit.] A one-seeded indehiscent part of a schizocarp, as of a cremocarp.

mericlinal (mĕrikli'näl) *a.* [Gk. *meris*, part; *klinein*, to bend.] Partly periclinal, *appl.* chimaera with inner tissue of one species only partly surrounded by outer tissue of the other.

meridional canal,—in ctenophores, a canal into which adradial canals open.

meridional furrow,—a longitudinal furrow extending from pole to pole of a segmenting egg.

merisis (mĕr'isís) *n.* [Gk. *meris*,

division.] Increase in size owing to cell division; *cf.* auxesis.

merism,—metamerism, *q.v.*

merismatic (mĕr'ismät'ik) *a.* [Gk. *merismos*, partition.] Dividing or separating into cells or segments; meristematic, *q.v.*

merismoid (mĕrís'moid) *a.* [Gk. *merismos*, partition; *eidōs*, like.] With branched pileus.

merispore (mĕr'ispōr) *n.* [Gk. *meris*, part; *spōros*, seed.] A segment or spore of a multicellular spore-body.

meristele (mĕr'istēlē) *n.* [Gk. *meris*, part; *stēle*, pillar.] A separate part of a monostelic stem passing outwards from stele to leaves; the branch of a stele supplying a leaf.

meristem (mĕr'istēm) *n.* [Gk. *meristos*, divided.] Tissue formed of cells all capable of diversification, as found at growing points; merismatic or meristematic tissue.

meristematic (mĕr'istēmät'ik) *a.* [Gk. *meristos*, divided.] *Pert.* or consisting of meristem; *appl.* tissue, cells of growing point; merismatic.

meristematic ring,—tube of meristematic tissue between cortex and pith, subtending the apical meristem and giving rise to vascular tissues.

meristic (mĕrís'tik) *a.* [Gk. *meristos*, divided.] Segmented; divided off into parts; differing in number of parts.

meristic variation,—changes in number of parts or segments, and in geometrical relations of the parts; *cf.* substantive variation.

meristogenetic (mĕrís'tōjĕnĕt'ik) *a.* [Gk. *meristos*, divided; *genesis*, descent.] Developing from meristem; developing from a single hyphal cell or a group of contiguous cells; meristogenous.

merithallus (mĕr'rithäl'üs) *n.* [Gk. *meris*, part; *thallōs*, young shoot.] A stem unit; an internode.

Merkel's corpuscle [*F. S. Merkel*, German anatomist]. A tactile receptor, in skin and in submucosa of mouth.

mermaid's purse,—horny, floating or fixed, egg-envelope of elasmobranchs.

mermithaner (mërmīth'änër) *n.* [Gk. *mermis*, cord; *aner*, male.] Male ant parasitised by *Mermis*.

mermithergate (mër'mithër'gât) *n.* [Gk. *mermis*, cord; *ergates*, worker.] An enlarged worker ant parasitised by *Mermis*.

mermithogyne (mërmī'thōjīn'ē) *n.* [Gk. *mermis*, cord; *gyne*, female.] Female ant parasitised by *Mermis*.

meroandry (mërōän'dri) *n.* [Gk. *meros*, part; *aner*, male.] The condition of having a reduced number of testes, as a single pair in certain Oligochaeta; *cf.* holandry.

meroblast (mër'öbläst) *n.* [Gk. *meros*, part; *blastos*, bud.] Intermediate stage between schizont and merozoite in some Sporozoa; a meroblastic ovum.

meroblastic (mër'öbläs'tik) *a.* [Gk. *meros*, part; *blastos*, bud.] *Appl.* ova which undergo only partial segmentation or cleavage in development; developing from part of the oosphere only.

merocerite (mërös'ërit) *n.* [Gk. *meros*, thigh; *keras*, horn.] The fourth segment of crustacean antennae.

merocrine (mër'ökrīn) *a.* [Gk. *meros*, part; *krinein*, to separate.] *Appl.* glands in which secreting cells are able to function repeatedly, as sudoriferous and lactiferous glands. *Opp.* holocrine.

merocytes (mër'ösīts) *n. plu.* [Gk. *meros*, part; *kytos*, hollow.] Nuclei formed by repeated division of supernumerary sperm-nuclei, as in egg of selachians, reptiles, and birds; schizonts, *q.v.*

merogametes (mër'ögämëts') *n. plu.* [Gk. *meros*, part; *gametes*, spouse.] Protozoan individuals specialised for syngamy; microgametes. *Opp.* hologametes.

merogamy,—microgamy, *q.v.*

merogastrula (mër'ögäs'troolä) *n.* [Gk. *meros*, part; *dim.* of *gaster*,

stomach.] The gastrula formed from a meroblastic ovum.

merogenesis (mër'öjën'ësis) *n.* [Gk. *meros*, part; *genesis*, descent.]

Formation of parts; segmentation.

merogeny,—merogony, *q.v.*

merognathite (mërög'näthit) *n.* [Gk. *meros*, thigh; *gnathos*, jaw.]

Fourth segment of crustacean mouth-part.

merogony (mërög'öni) *n.* [Gk. *meros*, part; *gone*, generation.] Development of normal young of small size, from part of an egg, in which there was no female pronucleus.

meroistic (mëröis'tik) *a.* [Gk. *meros*, part; *oon*, egg.] *Appl.* ovariole containing nutritive or nurse cells; *cf.* acrotrophic, polytrophic.

merokinesis (mër'ökinë'sis) *n.* [Gk. *meros*, part; *kinesis*, movement.] Formation and division of a thread-like chromosome in the karyomeres.

merome (mëröm) *n.* [Gk. *meros*, part.] A body segment; somite, metamere.

meromorphosis (mër'ömör'fösis) *n.* [Gk. *meros*, part; *morphosis*, shaping.] Regeneration of a part with the new part less than that lost.

meron (mër'ön) *n.* [Gk. *meros*, upper thigh.] Posterior portion of coxa of insects; sclerite between middle and hind coxae, or immediately above hind coxa, in Diptera; mesosternum.

meronephridia,—micronephridia.

meront (mërönt') *n.* [Gk. *meros*, part; *on*, being.] Any unit produced by cleavage or schizogony; a uninucleate schizont-stage in Neosporidia, succeeding the planont-stage.

meroplankton (mër'öpläng'tkton) *n.* [Gk. *meros*, part; *plangkton*, wandering.] Plankton living only part-time near the surface; temporary plankton, consisting mainly of eggs and larvae; seasonal plankton.

meropodite (mër'öpödit') *n.* [Gk. *meros*, upper thigh; *pous*, foot.] Fourth segment of thoracic appendage in crustaceans; femur in spiders.

meros,—meropodite.

merosomatous (mēr'ösöm'ätūs) *a.*

[Gk. *meros*, part; *soma*, body.]

Appl. ascidiozooids divided into two regions, thorax and abdomen.

merosome (mēr'ösöm) *n.* [Gk. *meros*, part; *soma*, body.] A body segment, somite, or metamere.

merosporangium (mēr'öspörän'jiüm) *n.* [Gk. *meros*, part; *sporos*, seed; *angeton*, vessel.] Outgrowth from the apex of a sporangiophore, producing a row of spores, as in certain Mucorales.

merosthenic (mēr'rösthēn'ik) *a.* [Gk. *meros*, upper thigh; *sthenos*, strength.] With unusually developed hind-limbs.

merotomy (mēr'ötö'mi) *n.* [Gk. *meros*, part; *temnein*, to cut.] Segmentation or division into parts.

merotype (mēr'ötīp) *n.* [Gk. *meros*, part; *typos*, pattern.] Part of the same perennial plant or vegetatively propagated animal from which a holotype was taken.

merozoite (mēr'özö'it) *n.* [Gk. *meros*, part; *zoon*, animal.] Division-product of a schizont in Sporozoa.

merozoon (mēr'özö'ön) *n.* [Gk. *meros*, part; *zoon*, animal.] A fragment of a unicellular animal containing part of the macronucleus, obtained by artificial division.

merrythought,—furcula of birds, formed by coalesced clavicles.

merus,—meropodite, *q.v.*

Méry's glands [*J. Méry*, French anatomist]. Bulbo-urthral glands.

mesad,—mediad, mesiad.

mesadenia (mēsädē'niā) *n. plu.* [Gk. *mesos*, middle; *aden*, gland.] Mesodermal accessory genital glands in insects; *cf.* ectadenia.

mesal,—medial, mesial.

mesamoeoid (mēs'amē'boid) *a.* [Gk. *mesos*, middle; *amoibe*, change; *eidos*, form.] *Appl.* nucleated cells of blood islands from which blood corpuscles are derived.

mesanepimeron (mēsän'ēpimē'rōn, mēz-) *n.* [Gk. *mesos*, middle; *ana*, up; *meros*, upper thigh.]

Sclerite above epimeron and below wing base, in Diptera.

mesanepisternum,—mesepisternum.

mesarch (mēs'ärk) *a.* [Gk. *mesos*, middle; *arche*, beginning.] *Appl.* xylem having metaxylem developing in all directions from the protoxylem, characteristic of ferns; having the protoxylem surrounded by metaxylem; beginning in a mesic environment, *appl.* seres.

mesaticephalic (mēs'ätikēfāl'ik, -sēf-) *a.* [Gk. *mesatos*, mid; *kephale*, head.] Having a cephalic index of 75 to 80; mesocephalic.

mesaxonic (mēs'äksōn'ik) *a.* [Gk. *mesos*, middle; *axon*, axis.] With the line dividing the foot, passing up the middle digit.

mesectoderm (mēs'ēktödērm) *n.* [Gk. *mesos*, middle; *ektos*, outside; *derma*, skin.] Parenchyma formed of descendants of ectodermal cells which migrated inwards.

mesembryo (mēsēm'briō) *n.* [Gk. *mesos*, middle; *embryon*, embryo.] The blastula.

mesencephalon (mēs'ēnkēf'älōn, -sēf-) *n.* [Gk. *mesos*, middle; *en*, in; *kephale*, head.] The mid-brain, comprising corpora quadrigemina (bigemina), cerebral peduncles, and aqueduct of Sylvius.

mesenchyma (mēsēng'kimā), **mesenchyme** (mēsēng'kim) *n.* [Gk. *mesos*, middle; *engchein*, to pour in.] A mass of tissue, intermediate between ectoderm and endoderm of a gastrula.

mesendoderm (mēsēn'dödērm) *n.* [Gk. *mesos*, middle; *endon*, within; *derma*, skin.] Cells lying posteriorly to lip of blastopore, partly invaginated with endoderm in gastrulation, in development of some molluscs.

mesenterial (mēs'ēntēr'iāl, mēz-) *a.* [Gk. *mesos*, middle; *enteron*, gut.] *Pert.* a mesentery; *appl.* filaments of Actinozoa.

mesenteric (mēs'ēntēr'ik) *a.* [Gk. *mesos*, middle; *enteron*, gut.] *Pert.* a mesentery; *appl.* arteries, glands, nerves, veins, etc.

mesenteriole (mēs'ēntē'rīōl) *n.* [L. *dim.* of *mesenterium*, mesentery.] A fold of peritoneum derived from mesentery, and retaining vermiform process or appendix in position.

mesenterium,—mesentery, *q.v.*

mesenteron (mēsēn'tērōn, mēz-) *n.* [Gk. *mesos*, middle; *enteron*, gut.] The main digestive cavity of Actinozoa and other Coelentera; portion of alimentary canal lined by endoderm; mid-gut.

mesentery (mēs'ēntērī, mēz-) *n.* [L. *mesenterium*, mesentery.] A peritoneal fold serving to hold viscera in position; a muscular partition extending inwards from body-wall in coelenterates.

mesentoderm,—mesendoderm.

mesepimeron (mēs'ēpimē'rōn, mēz-) *n.* [Gk. *mesos*, middle; *epi*, upon; *meros*, upper thigh.] The epimeron of insect mesothorax; meskat-epimeron in Diptera.

mesepisternum (mēs'ēpistēr'nūm) *n.* [Gk. *mesos*, middle; *epi*, upon; *sternon*, breast.] Meso-episternum, sclerite below anterior spiracle in Diptera; mesanepisternum.

mesepithelium,—mesothelium.

mesethmoid (mēsēth'moid, mēz-) *a.* [Gk. *mesos*, middle; *ethmos*, sieve; *eidos*, form.] Between the two ectethmoid bones; *appl.* ethmoid plate of cranium when it ossifies; median cranial bone of vertebrates.

mesiad (mēz'iād) *adv.* [Gk. *mesos*, middle; L. *ad*, to.] Towards or near the middle plane.

mesial (mē'zīāl), **mesian** (mē'zīān) *a.* [Gk. *mesos*, middle.] In the middle vertical or longitudinal plane.

mesic (mēs'ik, mē'zik) *a.* [Gk. *mesos*, middle.] Conditioned by temperate moist climate, neither xeric nor hydric.

meskatepimeron (mēskāt'ēpimē'rōn) *n.* [Gk. *mesos*, middle; *kata*, down; *epi*, upon; *meros*, upper thigh.] Sclerite posterior to mesosternal area, the mesepimeron of Diptera.

meskatepisternum (mēskāt'ēpistēr'nūm) *n.* [Gk. *mesos*, middle;

kata, down; *epi*, upon; *sternon*, chest.] Sclerite between root of wing and under-side of mesothorax, the sternopleura or mesosternal area of Diptera.

mesoappendix,—mesenteriole.

mesoarion,—mesovarium, *q.v.*

mesobenthos (mēs'ōbēn'thōs, mēz-) *n.* [Gk. *mesos*, middle; *benthos*, depths.] Animal and plant life of sea-bottom when depth is between 100 and 500 fathoms.

mesoblast (mēs'ōblāst, mēz-) *n.* [Gk. *mesos*, middle; *blastos*, bud.] The mesoderm or middle layer of an embryo; mesoblastema.

mesoblastic (mēs'ōblās'tik, mēz-) *a.* [Gk. *mesos*, middle; *blastos*, bud.] *Pert.* or developing from middle layer of an embryo.

mesobranchial (mēs'ōbrāng'kiāl, mēz-) *a.* [Gk. *mesos*, middle; *branchia*, gills.] *Pert.* middle gill-region, as in Crustacea.

mesobronchus (mēs'ōbrōng'kūs, mēz-) *n.* [Gk. *mesos*, middle; *brongchos*, windpipe.] In birds, the main trunk of a bronchus giving rise to secondary bronchi.

mesocaecum (mēs'ōsē'kūm, mēz-) *n.* [Gk. *mesos*, middle; L. *caecus*, blind.] The mesentery connected with the caecum.

mesocardium (mēs'ōkār'diūm, mēz-) *n.* [Gk. *mesos*, middle; *kardia*, heart.] An embryonic mesentery binding heart to pericardial walls; part of pericardium enclosing veins (venous m.) or aorta (arterial m.); mesocardial ligament or gubernaculum cordis.

mesocarp (mēs'ōkārp, mēz-) *n.* [Gk. *mesos*, middle; *karpos*, fruit.] The middle layer of the pericarp.

mesocentrous (mēs'ōsēn'trūs, mēz-) *a.* [Gk. *mesos*, middle; *kentron*, centre.] Ossifying from a median centre.

mesocephalic (mēs'ōkēf'ālik, mē'zō-sēf'ālik) *a.* [Gk. *mesos*, middle; *kephale*, head.] Having a cranial capacity of between 1350 and 1450 c.c.; *cf.* megacephalic, microcephalic.

mesocerebrum,—deutocerebrum.

mesochilium (mēs'ōkī'līŭm, mēz-) *n.*

[Gk. *mesos*, middle; *cheilos*, lip.]

The middle portion of labellum of orchids.

mesochiton (mēs'ōkī'tōn, mēz-) *n.*

[Gk. *mesos*, middle; *chiton*, coat.]

Middle layer of oögonial wall, between endochiton and exochiton, as in Fucales; mesochite.

mesocoel (mēs'ōsēl, mēz-) *n.* [Gk.

mesos, middle; *koilos*, hollow.]

Middle portion of coelomic cavity; the second of three main parts of coelom of molluscs; cavity of mesencephalon, aqueduct of Sylvius or iter.

mesocolic (mēs'ōkōl'ik, mēz-) *a.* [Gk.

mesos, middle; *kolon*, large intestine.]

Pert. mesocolon; *appl.* lymph glands.

mesocolon (mēs'ōkō'lōn, mēz-) *n.*

[Gk. *mesos*, middle; *kolon*, large intestine.] A mesentery or fold of peritoneum attaching colon to dorsal wall of abdomen.

mesocoracoid (mēs'ōkōr'ākoid, mēz-) *a.*

[Gk. *mesos*, middle; *korax*, crow; *eidos*, form.] Situated between hyper- and hypo-coracoid; *appl.* middle part of coracoid arch of certain fishes.

mesocotyl (mēs'ōkōt'īl, mēz-) *n.* [Gk.

mesos, middle; *kotyle*, cup.] Part of axis between scutellum and coleoptile.

mesocycle (mēs'ōsikl, mēz-) *n.* [Gk.

mesos, middle; *kyklos*, circle.] A layer of tissue between xylem and phloem of a monostelic stem; part of conjunctive tissue of stele.

mesodaeum (mēs'ōdē'ūm, mēz-) *n.*

[Gk. *mesos*, middle; *odaios*, *pert.* way.] Endodermal part of embryonic digestive tract, between stomodaeum and proctodaeum.

mesoderm (mēs'ōdērm, mēz-) *n.* [Gk.

mesos, middle; *derma*, skin.] The mesoblast or embryonic layer lying between ectoderm and endoderm.

mesodermal (mēs'ōdēr'māl, mēz-) *a.*

[Gk. *mesos*, middle; *derma*, skin.] *Pert.*, derived, or developing from mesoderm; mesodermic.

mesodesm (mēs'ōdēzm, mēz-) *n.*

[Gk. *mesos*, middle; *desma*, bond.]

Part of mesocycle.

mesodont (mēs'ōdōnt, mēz-) *a.* [Gk.

mesos, middle; *odous*, tooth.] *Appl.*

stag-beetles having a medium development of mandible projections.

meso-ectodermal, — ectomesoder-

mal, *q.v.*; ectomesogloal, *q.v.*

meso-episternum,—mesepisternum.

mesogaster (mēs'ōgās'tēr, mēz-) *n.*

[Gk. *mesos*, middle; *gaster*, stomach.] The mesentery or fold of peritoneum supporting the stomach.

mesogastric (mēs'ōgās'trik, mēz-) *a.*

[Gk. *mesos*, middle; *gaster*, stomach.] *Pert.* a mesogaster or mesogastrum, or to middle gastric region.

mesogastrum (mēs'ōgās'triŭm,

mēz-) *n.* [Gk. *mesos*, middle; *gaster*, stomach.] Mesentery connecting stomach with dorsal abdominal wall in embryo; middle abdominal region.

mesoglia (mēsōgli'ā, mēz-) *n.* [Gk.

mesos, middle; *gloia*, glue.] Mesodermal phagocytic interstitial cells of nervous system; of Hortege: microglia; of Robertson: oligodendrogia.

mesogloea (mēs'ōglē'ā, mēz-) *n.*

[Gk. *mesos*, middle; *gloia*, glue.] An intermediate non-cellular gelatinous layer in sponges and coelenterates.

mesognathion (mēs'ōnāth'īōn, mēz-) *n.*

[Gk. *mesos*, middle; *gnathos*, jaw.] The lateral segment of premaxilla, bearing lateral incisor.

mesohepar (mēs'ōhē'pār, mēz-) *n.*

[Gk. *mesos*, middle; *hepar*, liver.] Mesentery supporting liver.

mesohydrophytic (mēs'ōhi'drōfitik,

mēz-) *a.* [Gk. *mesos*, middle; *hydor*, water; *phyton*, plant.] Growing in temperate regions but requiring much moisture.

mesolamella (mēs'ōlāmēl'ā, mēz-) *n.*

[Gk. *mesos*, middle; *L. lamella*, thin plate.] A thin mesogloea layer between ocellus and gastroderms in jelly-fish.

mesolecithal (mēs'ölēs'ithāl, mēz-) *a.* [Gk. *mesos*, middle; *lekithos*, yolk.] Having a moderate yolk content; *cf.* centrolecithal.

mesology (mēsöl'ōji, mēz-) *n.* [Gk. *mesos*, middle; *logos*, discourse.] The study of relations between organism and environment; bionomics.

mesome (mēs'ōm, mēz'ōm) *n.* [Gk. *mesos*, middle.] The axis regarded as a morphological unit of plants.

mesomere (mēs'ōmēr, mēz-) *n.* [Gk. *mesos*, middle; *meros*, part.] Middle zone of coelomic pouches in embryo; mesoblastic somite or protovertebra; medial branch of phallic lobe in insects.

mesometrium (mēs'ōmē'trīum, mēz-) *n.* [Gk. *mesos*, middle; *metra*, uterus.] The mesentery of uterus and connecting tubes.

mesomitosis (mēs'ōmitō'sis, mēz-) *n.* [Gk. *mesos*, middle; *mitos*, thread.] Mitosis within nuclear membrane, without co-operation of cytoplasmic elements; *cf.* metomitosis.

mesomorph (mēs'ōmōrf, mēz-) *n.* [Gk. *mesos*, middle; *morphe*, form.] A mesomorphic animal; a mesomorphic plant, usually a mesophyte.

mesomorphic (mēs'ōmōrf'ik, mēz-) *a.* [Gk. *mesos*, middle; *morphe*, form.] Having form, structure, or size normal or intermediate between extremes; mesoplastic.

mesomyodian (mēs'ōmīō'diān, mēz-) *a.* [Gk. *mesos*, middle; *mys*, muscle; *eidos*, form.] *Appl.* birds with muscles of syrinx attached to middle of bronchial semi-rings.

meson (mēs'ōn, mēz'ōn) *n.* [Gk. *mesos*, middle.] The central plane, or region of it.

mesonephric (mēs'ōnēf'rik, mēz-) *a.* [Gk. *mesos*, middle; *nephros*, kidney.] *Pert.* mesonephros, or mid-kidney; *appl.* duct, tubules.

mesonephridium (mēs'ōnēfrīd'ium, mēz-) *n.* [Gk. *mesos*, middle; *nephros*, kidney; *idion*, *dim.*] A nephridium or excretory organ of certain invertebrates, derived from mesoblast.

mesonephros (mēs'ōnēf'rōs, mēz)

n. [Gk. *mesos*, middle; *nephros*, kidney.] Intermediate part of excretory organ in vertebrate embryos; Wolffian body.

mesonotum (mēs'ōnō'tum, mēz-) *n.* [Gk. *mesos*, middle; *noton*, back.] Dorsal part of insect mesothorax.

mesoparapteron (mēs'ōpārāp'tērōn, mēz-) *n.* [Gk. *mesos*, middle; *para*, beside; *pteron*, wing.] A small sclerite of mesothorax of some insects.

mesopetalum (mēs'ōpēt'ālūm, mēz-) *n.* [Gk. *mesos*, middle; *petalon*, leaf.] Labellum or lip of an orchid.

mesophanerophyte (mēs'ōfān'ērōfit, mēz-) *n.* [Gk. *mesos*, middle; *phaneros*, manifest; *phyton*, plant.] Tree from 8 to 30 metres in height.

mesophil (mēs'ōfil, mēz-) *a.* [Gk. *mesos*, middle; *philein*, to love.] Thriving at moderate temperatures, at between 20° and 40° C. when *appl.* bacteria; mesophilic; mesic, *q.v.* *n.* Mesophile.

mesophloem (mēs'ōfīō'ēm, mēz-) *n.* [Gk. *mesos*, middle; *phloios*, smooth bark.] Middle or green bark; mesophloeum.

mesophragma (mēs'ōfrāg'mā, mēz-) *n.* [Gk. *mesos*, middle; *phragma*, fence.] A chitinous piece descending into interior of insect body with post-scutellum for base; M or Hensen's line, *q.v.*

mesophryon (mēs'ōf'rīōn, mēz-) *n.* [Gk. *mesos*, middle; *ophrys*, eyebrow.] The elevated median head-region or glabella of trilobites.

mesophyll (mēs'ōfil, mēz-) *n.* [Gk. *mesos*, middle; *phyllon*, leaf.] The internal parenchyma of a leaf.

mesophyte (mēs'ōfit, mēz-) *n.* [Gk. *mesos*, middle; *phyton*, plant.] A plant thriving in temperate climate with normal amount of moisture.

mesoplankton (mēs'ōplāng'ktōn, mēz-) *n.* [Gk. *mesos*, middle; *planktos*, wandering.] Drifting animal and plant life from a hundred fathoms downwards; drifting organisms of medium size; *cf.* megaplankton, microplankton, nanoplankton.

mesoplast (mēs'ōplāst, mēz-) *n.* [Gk. *mesos*, middle; *plastos*, moulded.] A cell nucleus.

mesoplastic (mēs'ōplās'tik, mēz-) *a.* [Gk. *mesos*, middle; *plastos*, moulded.] Having a normal or average form; mesomorphic; *appl.* constitutional type.

mesoplastron (mēs'ōplās'trōn, mēz-) *n.* [Gk. *mesos*, middle; F. *plastron*, breast-plate.] Plate between hyo- and hypo-plastron of certain turtles.

mesopleurite (mēs'ōploō'rīt, mēz-) *n.* [Gk. *mesos*, middle; *pleura*, side.] Lateral mesothoracic sclerite, as in Diptera.

mesopleuron (mēs'ōploō'rōn, mēz-) *n.* [Gk. *mesos*, middle; *pleura*, side.] A lateral part of insect mesothorax; a mesopleurite.

mesopodial (mēs'ōpō'diāl, mēz-) *a.* [Gk. *mesos*, middle; *pous*, foot.] Having a supporting structure, such as a stipe, in a central position; *pert.* a mesopodium.

mesopodium (mēs'ōpō'diūm, mēz-) *n.* [Gk. *mesos*, middle; *pous*, foot.] Leaf-stalk or petiole region of leaf; middle part of molluscan foot; the metacarpus or metatarsus.

mesopostscutellum (mēs'ōpōst'-skūtēl'ūm, mēz-) *n.* [Gk. *mesos*, middle; L. *post*, after; *scutellum*, small shield.] Postscutellum of mesothorax in insects.

mesopraescutum (mēs'ōprēskū'tūm, mēz-) *n.* [Gk. *mesos*, middle; L. *prae*, before; *scutum*, shield.] Praescutum of mesothorax in insects; mesoprescutum.

mesopterygium (mēs'ōtērj'ūm, mēz-) *n.* [Gk. *mesos*, middle; *pterygion*, little wing or fin.] The middle of three basal pectoral fin-cartilages in recent elasmobranchs.

mesopterygoid (mēs'ōtēr'īgoid, mēz-) *n.* [Gk. *mesos*, middle; *pteryx*, wing; *eidos*, form.] The middle of three pterygoid bone elements of teleosts; the ectopterygoid.

mesoptile (mēs'ōtil, mēz-, -ptil) *n.*

[Gk. *mesos*, middle; *ptilon*, feather.] Prepenna following proptile and succeeded by metaptile or by teleoptile.

mesorchium (mēs'ōrk'ūm, mēz-) *n.* [Gk. *mesos*, middle; *orchis*, testicle.] Mesentery supporting testis.

mesorectum (mēs'ōrēk'tūm, mēz-) *n.* [Gk. *mesos*, middle; L. *rectus*, straight.] Mesentery supporting rectum.

mesorhinal (mēs'ōrī'nāl, mēz-) *a.* [Gk. *mesos*, middle; *rhines*, nostrils.] Between nostrils.

mesorhinium (mēs'ōrīn'ūm, mēz-) *n.* [Gk. *mesos*, middle; *rhis*, nose.] The internarial surface region of a bird's bill.

mesosalpinx (mēs'ōsāl'pīngks, mēz-) *n.* [Gk. *mesos*, middle; *salpingx*, trumpet.] The portion of broad ligament enclosing uterine tube.

mesoscapula (mēs'ōskāp'ulā, mēz-) *n.* [Gk. *mesos*, middle; L. *scapula*, shoulder-blade.] Scapular spine.

mesoscutellum (mēs'ōskūtēl'ūm, mēz-) *n.* [Gk. *mesos*, middle; L. *scutellum*, small shield.] Scutellum of insect mesothorax.

mesoscutum (mēs'ōskū'tūm, mēz-) *n.* [Gk. *mesos*, middle; L. *scutum*, shield.] Scutum of insect mesothorax.

mesosoma (mēs'ōsō'mā, mēz-) *n.* [Gk. *mesos*, middle; *soma*, body.] Middle part of body; praeadomen of Arthropoda.

mesosome (mēs'ōsōm, mēz-) *n.* [Gk. *mesos*, middle; *soma*, body.] A phallosome, *q.v.*

mesosperm (mēs'ōspērm, mēz-) *n.* [Gk. *mesos*, middle; *sperma*, seed.] Integument investing nucellus of ovule.

mesospore (mēs'ōspōr, mēz-) *n.* [Gk. *mesos*, middle; *sporos*, seed.] A unicellular teleutospore in certain rust fungi; a resting-spore or amphispore.

mesosporium (mēs'ōspō'rīūm, mēz-) *n.* [Gk. *mesos*, middle; *sporos*, seed.] The intermediate of three spore coats.

mesostate (mēs'östāt, mēz-) *n.* [Gk. *mesos*, middle; *stasis*, standing.] Intermediate stage in metabolism.

mesostereom (mēs'östēr'ēdm, mēz-) *n.* [Gk. *mesos*, middle; *stereos*, solid.] The middle layer of thecal plates of Cystidea.

mesosternebra (mēs'östēr'nēbrā, mēz-) *n.* [Gk. *mesos*, middle; *sternon*, breast-bone.] A part of developing mesosternum.

mesosternum (mēs'östēr'nūm, mēz-) *n.* [Gk. *mesos*, middle; L. *sternum*, breast-bone.] Middle part of sternum of vertebrates; gladiolus; sternum of mesothorax of insects; mesosternal area, episternum of mesothorax, or mesokatepisternum of Diptera.

mesostethium (mēs'östē'thūm, mēz-) *n.* [Gk. *mesos*, middle; *stethos*, chest.] A mesosternum.

mesostylous (mēs'östī'lūs, mēz-) *a.* [Gk. *mesos*, middle; *stylos*, pillar.] Having styles of intermediate length; *appl.* heterostylous flowers.

mesotarsal (mēs'ötār'sāl, mēz-) *a.* [Gk. *mesos*, middle; L. *tarsus*, ankle-joint.] *Pert.* mesotarsus.

mesotarsus (mēs'ötār'sūs, mēz-) *n.* [Gk. *mesos*, middle; L. *tarsus*, ankle-joint.] A middle-limb tarsus of insects.

mesotergum (mēs'ötēr'gūm, mēz-) *n.* [Gk. *mesos*, middle; L. *tergum*, back.] Median arched portion or axis of trilobite body.

mesothecium (mēs'öthē'siūm, mēz-) *n.* [Gk. *mesos*, middle; *thēke*, cup.] The middle investing layer of an anther-sac; lichen thecium.

mesotheic (mēs'öthē'ikē, mēz-) *a.* [Gk. *mesos*, middle; *theinai*, to render.] Neither highly susceptible nor entirely resistant to parasites or infection.

mesothelium (mēs'öthē'liūm, mēz-) *n.* [Gk. *mesos*, middle; *thēle*, nipple.] Mesoderm bounding primitive coelom and giving rise to muscular and connective tissue; epithelium of mesoblastic origin.

mesotherm (mēs'öthērm, mēz-) *n.*

[Gk. *mesos*, middle; *therme*, heat.] Plant thriving in moderate heat.

mesothoracic (mēs'öthörās'ik, mēz-) *a.* [Gk. *mesos*, middle; *thorax*, chest.] *Pert.* or in region of mesothorax; *appl.* a spiracle, of insects.

mesothorax (mēs'öthō'rāks, mēz-) *n.* [Gk. *mesos*, middle; *thorax*, chest.] The middle segment of thoracic region of insects.

mesotic (mēs'ötīk, mēz-) *a.* [Gk. *mesos*, middle; *ous*, ear.] *Appl.* paired chondrocranial cartilages in birds, between parachordal and acrochordal; also basiotic.

mesotriaene (mēs'ötī'ēn, mēz-) *n.* [Gk. *mesos*, middle; *triaina*, trident.] Aberrant type of triaene spicule.

mesotrochal (mēs'öt'rökāl, mēz-) *a.* [Gk. *mesos*, middle; *trochos*, wheel.] *Appl.* an annulate larva with cirrlet of cilia round middle of body.

mesotrophic (mēs'öt'rōf'ik, mēz-) *a.* [Gk. *mesos*, middle; *trophē*, nourishment.] Mixotrophic, *q.v.*; providing a moderate amount of nutrition, *appl.* environment.

mesotropic (mēs'öt'rōp'ik, mēz-) *a.* [Gk. *mesos*, middle; *trōpikos*, turning.] Turning or directed toward the middle or toward the median plane.

mesotympanic (mēs'ötīmpān'ik, mēz-) *n.* [Gk. *mesos*, middle; *tympanon*, drum.] Symplectic; a bone in suspensory apparatus of lower jaw in fishes.

mesovarium (mēs'övā'riūm, mēz-) *n.* [Gk. *mesos*, middle; L. *ovarium*, ovary.] Mesentery of ovary; suspensory mesentery in fishes.

mesoventral (mēs'övēn'trāl, mēz-) *a.* [Gk. *mesos*, middle; L. *venter*, belly.] In middle ventral region.

Mesozoic (mēs'özō'ik, mēz-) *a.* [Gk. *mesos*, middle; *zoe*, life.] *Appl.* or *pert.* secondary geological era, the age of reptiles.

mestome (mēs'tōm) *n.* [Gk. *mestos*, filled.] A vascular bundle, including hadrome and leptome.

- metabasis** (mētāb'āsīs) *n.* [Gk. *metabasis*, alteration.] Transition; change, as of symptoms.
- metabiosis** (mēt'ābiō'sīs) *n.* [Gk. *meta*, after; *biosis*, a living.] Condition in which one organism lives only after another has prepared its environment and has died; changed condition of living resulting from an external cause, as bacterial mutations due to radiation.
- metabolic** (mēt'ābol'ik) *a.* [Gk. *metabole*, change.] Changeable; *appl.* chemical changes occurring in the living organism; influencing metabolism, *appl.* hormones; formed during metabolism; metamorphosing.
- metabolin**,—metabolite, *q.v.*
- metabolism** (mētāb'ōlizm) *n.* [Gk. *metabole*, change.] The chemical change, constructive and destructive, occurring in living organisms.
- metabolite** (mētāb'ōlit) *n.* [Gk. *metabole*, change.] Any product of metabolism.
- metaboly** (mētāb'ōli) *n.* [Gk. *metabole*, change.] Change, particularly of shape, as in Eugleninae.
- metabranhial** (mēt'ābrāng'kiāl) *a.* [Gk. *meta*, after; *branchia*, gills.] *Pert.* or in region of posterior gill region.
- metacarpal** (mēt'ākār'pāl) *a.* [Gk. *meta*, after; *karpōs*, wrist.] *Pert.* metacarpus; *appl.* bones, articulations, etc. *n.* A primary wing-quill in the metacarpal region.
- metacarpophalangeal** (mēt'ākār'pō-fālān'jēāl) *a.* [Gk. *meta*, after; *karpōs*, wrist; *phalangx*, series.] *Appl.* articulations between metacarpals and phalanges.
- metacarpus** (mēt'ākār'pūs) *n.* [Gk. *meta*, after; *karpōs*, wrist.] The skeletal part of hand between wrist and fingers, consisting typically of five cylindrical bones.
- metacele**,—metacoel.
- metacentric** (mēt'āsēn'trik) *a.* [Gk. *meta*, among; *kentron*, centre.] Having the centromere at or near the middle, *appl.* chromosomes; *cf.* acrocentric, telocentric. *n.* A metacentric or V-shaped chromosome; isochromosome.
- metacercaria** (mēt'āsērkā'riā) *n.* [Gk. *meta*, after; *kērkos*, tail.] A cercaria after encystment; adolecercaria.
- metacerebrum**,—tritocerebrum.
- metacestode** (mēt'āsēs'tōd) *n.* [Gk. *meta*, after; *kestos*, girdle; *eidōs*, form.] Bladder-worm, encysted stage of a cestode; plerocystoid; plerocercoid.
- metachroic** (mētākro'ik) *a.* [Gk. *meta*, change of; *chros*, colour.] Changing colour, as older tissue in fungi.
- metachromasis** (mēt'ākro'māsīs) *n.* [Gk. *meta*, change of; *chroma*, colour.] Condition of certain tissues and cell components which, treated with basic aniline stains, show other than the fundamental colour constituent; metachromasy.
- metachromatic** (mēt'ākromāt'ik) *a.* [Gk. *meta*, change of; *chroma*, colour.] *Appl.* substances characterised by metachromasy; *appl.* granules of reserve food substances which stain with basic dyes, in bacteria and algal cells; *appl.* minute bodies in protoplasm of certain hyphal cells, Woronin bodies.
- metachromatinic grains**,—chromatoid bodies found in cells, very similar to chromatin in properties and characteristics.
- metachrome**,—a metachromatic granule.
- metachromy** (mēt'ākro'mī) *n.* [Gk. *meta*, change of; *chroma*, colour.] Change in colour, as of flowers.
- metachronic** (mēt'ākron'ik) *a.* [Gk. *metachronos*, done afterwards.] One acting after the other; *appl.* rhythm of movement of cilia.
- metachrosis** (mēt'ākro'sīs) *n.* [Gk. *meta*, change of; *chrosis*, colouring.] Ability to change skin colour by expansion or contraction of pigment cells.
- metacneme** (mēt'ākknēmē) *n.* [Gk. *meta*, after; *kneme*, tibia.] A secondary mesentery of Zoantharia.

- metacoel** (mēt'āsēl) *n.* [Gk. *meta*, after; *koilos*, hollow.] The posterior part of coelom of molluscs; anterior extension of fourth ventricle of brain.
- metacone** (mēt'ākōn) *n.* [Gk. *meta*, after; *konos*, cone.] Postero-external cusp of upper molar.
- metaconid** (mēt'ākō'nid) *n.* [Gk. *meta*, after; *konos*, cone.] Postero-internal cusp of lower molar.
- metaconule** (mēt'ākō'nūl) *n.* [Gk. *meta*, after; *konos*, cone.] Posterior secondary cusp of upper molar.
- metacoracoid** (mēt'ākōr'ākoid) *n.* [Gk. *meta*, after; *korax*, crow; *eidos*, form.] Posterior part of coracoid.
- metacromion** (mēt'ākro'miōn) *n.* [Gk. *meta*, after; *akros*, summit; *omos*, shoulder.] Posterior branch-process of acromion-process of scapular spine.
- metacyclic** (mēt'āsīk'lik) *a.* [Gk. *meta*, after; *kyklos*, circle.] *Appl.* final infective forms, of certain parasitic protozoa, which pass on to next host.
- metadiscoidal** (mēt'ādiskoid'āl) *a.* [Gk. *meta*, after; *diskos*, disc; *eidos*, form.] *Appl.* placenta in which villi are at first scattered and later restricted to a disc, as in man and monkeys.
- metadromous** (mētād'rōmūs) *a.* [Gk. *meta*, after; *dromos*, running.] With primary veins of segment arising from upper side of mid-rib.
- meta-episternum**, — metepisternum.
- metaesthetism** (mētēsthē'tizm) *n.* [Gk. *meta*, after; *aisthetos*, perceptible by senses.] Doctrine that "consciousness is a product of evolution of matter and force."
- metagastric** (mēt'ägās'trik) *a.* [Gk. *meta*, after; *gaster*, stomach.] *Pert.* posterior gastric region.
- metagastrula** (mēt'ägās'troolā) *n.* [Gk. *meta*, after; *gaster*, stomach.] A modified form of gastrula.
- metagenesis** (mēt'ājēn'ēsis) *n.* [Gk.

- meta*, after; *genesis*, descent.] Alternation of sexual and asexual generations; *cf.* heterogenesis.
- metagnathous** (mētāg'nāthūs) *a.* [Gk. *meta*, change of; *gnathos*, jaw.] Having mouth parts for biting in the larval stage and for sucking in the adult, as certain insects; having the points of the beak crossed, as crossbills.
- metagyny** (mētāj'īnī, mēt'āgī'nī) *n.* [Gk. *meta*, afterwards; *gyne*, female.] Protandry.
- metakinesis** (mēt'ākīnē'sis) *n.* [Gk. *meta*, after; *kinein*, to move.] Middle stage of mitosis, during which chromosomes are grouped in equatorial plate; movement of chromosomes between prophase and metaphase; hypothetical quality of organisms which has the potentiality of evolving into consciousness.
- metaleptic** (mēt'ālēp'tik) *a.* [Gk. *metalepsis*, participation.] Associated in a process or action; operating together; synergic.
- metallic** (mētāl'ik) *a.* [Gk. *metallon*, mine.] Iridescent; *appl.* colours due to interference by fine striae or thin lamellae, as in insects.
- metaloph** (mēt'ālōf) *n.* [Gk. *meta*, after; *lophos*, crest.] The posterior crest of a molar, uniting metacone, metaconule, and hypocone.
- metamere** (mēt'āmēr) *n.* [Gk. *meta*, after; *meros*, part.] A body segment.
- metameric** (mēt'āmēr'ik) *a.* [Gk. *meta*, after; *meros*, part.] *Pert.* metamerism or segmentation.
- metamerised** (mēt'āmērīzd) *a.* [Gk. *meta*, after; *meros*, part.] Segmented.
- metamerism** (mēt'āmērīzm) *n.* [Gk. *meta*, after; *meros*, part.] The condition of a body divided up into segments more or less alike; segmentation; zonal symmetry.
- metamitosis** (mēt'āmītō'sis) *n.* [Gk. *meta*, after; *mitos*, thread.] Mitosis in which cytoplasmic and nuclear elements are both affected; *cf.* mesomitosis.

metamorphosis (mēt'āmôr'fōsis) *n.* [Gk. *meta*, change of; *morphe*, form.] Change of form and structure undergone by an animal from embryo to adult stage, as in insects; transformation of one structure into another, as of stamens into petals; interference with normal symmetry in flowers; internal chemical change.

metamps (mēt'āmps) *n. plu.* [Gk. *meta*, change of; *morphe*, form.] Different forms of same species, as in certain sponges.

metamyelocyte (mētāmī'ēlōsit) *n.* [Gk. *meta*, beyond; *myelos*, marrow; *kytos*, hollow.] A myelocyte with horseshoe-shaped nucleus before transformation into a leucocyte.

metanauplius (mēt'ānōp'liūs) *n.* [Gk. *meta*, after; L. *nauplius*, kind of shell-fish.] Larval stage of Crustacea, succeeding nauplius stage.

metandry (mētān'drī) *n.* [Gk. *meta*, after; *aner*, male.] Meroandry with retention of posterior pair of testes only, *opp.* proandry; protogyny, *opp.* protandry.

metanephric (mēt'ānēf'rik) *a.* [Gk. *meta*, after; *nephros*, kidney.] *Pert.* or in region of hind-kidney.

metanephros (mēt'ānēf'rōs) *n.* [Gk. *meta*, after; *nephros*, kidney.] The organ arising behind mesonephros and replacing it as functional kidney of fully-developed Amniota.

metanotum (mēt'ānō'tūm) *n.* [Gk. *meta*, after; *noton*, back.] Notum or tergum of insect metathorax.

metanucleus (mēt'ānū'klēūs) *n.* [Gk. *meta*, after; L. *nucleus*, kernel.] Egg-nucleolus after extrusion from germinal vesicle.

metapeptone (mēt'āpēp'tōn) *n.* [Gk. *meta*, after; *peptos*, digested.] A product of action of gastric juice on albumins.

metaphase (mēt'āfāz) *n.* [Gk. *meta*, after; *phainein*, to appear.] The stage in mitosis or meiosis in which chromosomes are split up in equatorial plate.

metaphery (mētāf'ērī) *n.* [Gk. *meta*,

change of; *herein*, to bear.] Displacement of organs.

metaphloem (mēt'āflō'ēm) *n.* [Gk. *meta*, after; *phloios*, inner bark.] The phloem of secondary xylem.

metaphragma (mēt'āfrāg'mā) *n.* [Gk. *meta*, after; *phragma*, fence.] An internal metathoracic septum in insects.

metaphysis (mētāf'isis) *n.* [Gk. *meta*, besides; *physis*, growth.] Paraphysis, *q.v.*, of fungi; vascular part of diaphysis adjoining epiphyseal cartilage.

metaphyte (mēt'āfit) *n.* [Gk. *meta*, after; *phyton*, plant.] A multicellular plant, *opp.* protophyte.

metaplasia (mēt'āplā'siā) *n.* [Gk. *meta*, change of; *plasis*, moulding.] Conversion of tissue from one form to another, as in ossification.

metaplasis (mētāp'lāsis) *n.* [Gk. *meta*, after; *plasis*, moulding.] The mature period in life of an individual.

metaplastm (mēt'āplāzm) *n.* [Gk. *meta*, after; *plasma*, mould.] Lifeless or ergastic ingredients of protoplasm, *opp.* to living material or organoids.

metaplastic (mēt'āplās'tik) *a.* [Gk. *meta*, after; *plastos*, moulded.] *Pert.* metaplasia; *pert.* metaplastm.

metaplastic or metaplastic bodies, —grains of protoplasm which are stages or products of metabolism and not true protoplasm.

metapleural (mēt'āploō'rāl) *a.* [Gk. *meta*, after; *pleura*, side.] Posteriorly and laterally situated; *pert.* metapleure; *pert.* metapleuron.

metapleure (mēt'āploor) *n.* [Gk. *meta*, after; *pleura*, side.] An abdominal or ventro-lateral fold of integument of certain primitive Chordata.

metapleuron (mēt'āploor'ōn) *n.* [Gk. *meta*, after; *pleura*, side.] The pleuron of insect metathorax.

metapneustic (mēt'ānū'stik, -pnū'-) *a.* [Gk. *meta*, after; *pneuma*, breath.] *Appl.* insect larvae with only the terminal pair of spiracles.

metapodeon (mēt'āpōd'ēōn), **metapodeum** (mēt'āpō'dēūm) *n.* [Gk. *meta*, after; *pous*, foot.] That part of insect abdomen behind petiole or pondeon.

metapodial (mēt'āpō'dīāl) *a.* [Gk. *meta*, after; *pous*, foot.] *Pert.* a metapodeon or to a metapodium.

metapodium (mēt'āpō'diūm) *n.* [Gk. *meta*, after; *pous*, foot.] Posterior portion of molluscan foot; portion of foot between tarsus and digits; in four-footed animals, metacarpus and metatarsus.

metapodosoma (mēt'āpōdōsō'mā) *n.* [Gk. *meta*, after; *apo*, from; *pous*, foot; *soma*, body.] Body region bearing third and fourth pair of legs in Acarina.

metapolar cells,—second circlet of cells of polar cap of rhombogen of Rhombozoa.

metapophysis (mēt'āpōf'isīs) *n.* [Gk. *meta*, after; *apo*, from; *phyein*, to grow.] A prolongation of a vertebral articular process developed in certain vertebrates; mamillary process.

metapore (mēt'āpōr) *n.* [Gk. *meta*, after; *poros*, channel.] The medial aperture in roof of fourth ventricle of brain; Magendie's foramen.

metapostscutellum (mēt'āpōst'skūtēl'ūm) *n.* [Gk. *meta*, after; L. *post*, after; *scutellum*, small shield.] Postscutellum of insect metathorax.

metapraescutum (mēt'āprēskū'tūm) *n.* [Gk. *meta*, after; L. *prae*, before; *scutum*, shield.] Praescutum of insect metathorax.

metapterygium (mēt'ātērj'itūm) *n.* [Gk. *meta*, after; *pterygon*, little wing.] The posterior basal fin-cartilage, pectoral or pelvic, of recent elasmobranchs.

metapterygoid (mēt'ātēr'igoid) *n.* [Gk. *meta*, after; *pteryx*, wing; *eidos*, form.] Posterior of three pterygoid elements in certain lower vertebrates.

metaptile (mēt'ātil, -ptil) *n.* [Gk. *meta*, after; *ptilon*, feather.] A

plumose penna or feather; *cf.* mesoptile, teleoptile.

metarachis (mēt'ārā'kīs) *n.* [Gk. *meta*, after; *rhachis*, spine.] Face of Pennatulacea which coincides with sulcar aspect of terminal zooid—so-called dorsal surface.

metarhodopsin (mēt'ārōdōp'sin) *n.* [Gk. *meta*, after; *rhodon*, rose; *opsis*, sight.] Transient orange product of lumirhodopsin, dissociating into trans vitamin A, aldehyde and scotopsin.

metarteriole (mēt'ārtēr'iōl) *n.* [Gk. *meta*, besides; L.L. *arteriola*, small artery.] Branch of an arteriole between arteriole and arterial capillaries.

metarubricyte (mēt'āroob'risit) *n.* [Gk. *meta*, after; L. *ruber*, red; Gk. *kytos*, hollow.] Normoblast.

metascutellum (mēt'āskūtēl'ūm) *n.* [Gk. *meta*, after; L. *scutellum*, small shield.] Scutellum of insect metathorax.

metascutum (mēt'āskū'tūm) *n.* [Gk. *meta*, after; L. *scutum*, shield.] Scutum of insect metathorax.

metaseptum (mēt'āsēp'tūm) *n.* [Gk. *meta*, after; L. *septum*, partition.] A secondary or subsequently formed septum; a protoplasmic partition.

metascula (mēt'āsik'ulā) *n.* [Gk. *meta*, after; L. *sicula*, small dagger.] Part of the scula from which the first theca buds laterally, in graptolites.

metasitism (mēt'āsītizm) *n.* [Gk. *meta*, after; *sitos*, food.] A cannibalistic mode of life.

metasoma (mēt'āsō'mā) *n.* [Gk. *meta*, after; *soma*, body.] The six terminal segments of opisthosoma of Eurypterida; posterior body-region of Arachnoidea; post-abdomen; abdomen, as of woodlice.

metasomatic (mēt'āsōmāt'ik) *a.* [Gk. *meta*, after; *soma*, body.] *Pert.* or situated in metasoma.

metasperm (mēt'āspērm) *n.* [Gk. *meta*, after; *sperma*, seed.] A plant having seeds in a closed ovary; an angiosperm.

metasporangium (mēt'āspōrān'jiūm) *n.* [Gk. *meta*, after; *sporos*, seed; *angeion*, vessel.] A sporangium containing resting spores, as in Bacillaceae.

metastasis (mētās'tāsīs) *n.* [Gk. *metastasis*, removal.] Metabolism; transference of function from one organ to another; transport of bacteria by the circulatory system.

metastatic life history,—that of certain Trematoda in which the young form, after entering intermediate host, metamorphoses into adult, after which intermediate host is swallowed by final host.

metasternum (mēt'āstēr'nūm) *n.* [Gk. *meta*, after; L. *sternum*, breastbone.] The sternum of insect metathorax; sternum of fourth segment of podosoma in Acarina; posterior sternal part, or xiphisternum, of Anura; xiphoid or ensiform process, posterior part of sternum of higher vertebrates.

metasthenic (mēt'āsthēn'ik) *a.* [Gk. *meta*, after; *sthenos*, strength.] With well-developed posterior part of body.

metastigmate (mēt'āstīg'māt) *a.* [Gk. *meta*, after; *stigma*, mark.] Having posterior tracheal openings or stigmata, as in mites.

metastoma (mētās'tō'mā) *n.* [Gk. *meta*, after; *stoma*, mouth.] The two-lobed lower lip of Crustacea; 'hypopharynx' of Myriopoda; median plate behind mouth in Palaeostraca; metastome.

metastructure (mēt'āstrūk'tūr) *n.* [Gk. *meta*, after; L. *struere*, to build.] Ultramicroscopic organisation.

metasyndesis (mēt'āsīn'dēsīs) *n.* [Gk. *meta*, after; *syndesis*, bond.] Telosyndesis, *q.v.*

metatarsal (mēt'ātār'sāl) *a.* [Gk. *meta*, after; L. *tarsus*, ankle.] In region of metatarsus; *appl.* arteries, veins, etc.; *pert.* metatarsal bones.

metatarsophalangeal (mēt'ātār'sō-fālān'jēāl) *a.* [Gk. *meta*, after; L. *tarsus*, ankle; Gk. *phalangx*, troop.] *Appl.* articulations between metatarsus and phalanges of foot.

metatarsus (mēt'ātār'sūs) *n.* [Gk.

meta, after; L. *tarsus*, ankle.] Part of foot between tarsus and toes; first joint of tarsus in insects; first dactylopodite or basitarsus in spiders.

metathalamus (mēt'āthāl'āmūs) *n.* [Gk. *meta*, after; *thalamos*, chamber.] The geniculate bodies of the thalamencephalon.

metatherian (mēt'āthē'rīān) *a.* [Gk. *meta*, beyond; *therion*, small animal.] *Appl.* marsupials, with short-term placenta and later development in marsupium.

metathetely (mēt'āthēt'ēli) *n.* [Gk. *metathelein*, to run behind; *telos*, completion.] Hysterotely.

metathorax (mēt'āthō'rāks) *n.* [Gk. *meta*, after; *thorax*, chest.]

Posterior segment of insect thorax.

metatracheal (mēt'ātrā'kēāl) *a.* [Gk. *meta*, between; L.L. *trachia*, windpipe.] *Appl.* wood, with xylem parenchyma located independently of the vessels.

metatroch (mēt'ātrōk) *n.* [Gk. *meta*, after; *trochos*, wheel.] In a trochophore, a circular band of cilia behind the mouth.

metatrophic (mēt'ātrōf'ik) *a.* [Gk. *meta*, change of; *trophē*, nourishment.] Living on both nitrogenous and carbonaceous organic matter.

metatympanic,—entotympanic, *q.v.*

metatype (mēt'ātip) *n.* [Gk. *meta*, after; *typos*, image.] A toptype of the same species as the holotype or lectotype.

metaxenia (mēt'āzē'nīā) *n.* [Gk. *meta*, after; *xenia*, hospitality.] Physiological effect of pollen upon maternal tissue.

metaxylem (mēt'āzi'lēm) *n.* [Gk. *meta*, after; *xylon*, wood.] Secondary xylem with many thick-walled cells.

metazoea (mēt'āzōē'ā) *n.* [Gk. *meta*, after; *zoe*, life.] A larval stage of Crustacea between zoea and megalopa stages.

metazonite (mēt'āzōnīt) *n.* [Gk. *meta*, after; *zone*, girdle.] The posterior ring of a diplosomite. *Opp.* prozonite.

metazoon (mēt'āzō'ōn) *n.* [Gk. *meta*, after; *zoon*, animal.] A multicellular animal; metazoan; a metazoan excluding Parazoa.

metembryo (mētēm'brīō) *n.* [Gk. *meta*, towards; *embryon*, embryo.] The gastrula.

metencephalon (mēt'ēnkēf'ālōn, -sēf-) *n.* [Gk. *meta*, after; *en*, in; *kephale*, head.] Part of hind-brain, consisting of cerebellum, pons, and intermediate part of fourth ventricle; or hind-brain.

metenteron (mētēn'tērōn) *n.* [Gk. *meta*, after; *enteron*, gut.] Intermesenteric chamber of sea-anemone or other coelenterate.

metepencephalon, — rhombencephalon or hind-brain.

metepimeron (mēt'ēpimē'rōn) *n.* [Gk. *meta*, after; *epi*, upon; *meros*, upper thigh.] Epimeron of insect metathorax.

metepisternum (mēt'ēpistēr'nūm) *n.* [Gk. *meta*, after; *epi*, upon; *sternon*, breast-bone.] Episternum of insect metathorax; metaepisternum.

metestrum,—metoestrus, *q.v.*

methaemoglobin (mēt-hē'mōglō'bīn) *n.* [Gk. *meta*, after; *haima*, blood; *L. globus*, globe.] An oxidation product of haemoglobin; HbO, HbOH.

metochy (mēt'ōkī) *n.* [Gk. *metoche*, sharing.] Relationship between a neutral guest insect and its host.

metoecious (mētē'siūs) *a.* [Gk. *meta*, after; *oikos*, house.] Metoxenous or heteroecious; with two hosts.

metoestrus (mētē'strūs) *n.* [Gk. *meta*, after; *oistros*, gadfly.] The luteal phase, period when activity subsides after oestrus; metoestrum.

metope (mēt'ōpē) *n.* [Gk. *metopon*, forehead.] The middle frontal portion of a crustacean.

metopic (mētōp'ik) *a.* [Gk. *metopon*, forehead.] *Pert.* forehead; *appl.* frontal suture.

metopion (mētō'pīōn) *n.* [Gk. *metopion*, forehead.] Point on forehead where mid-sagittal plane

intersects line connecting frontal eminences.

metosteon (mētōs'tēōn) *n.* [Gk. *meta*, after; *osteon*, bone.] A posterior sternal ossification in birds.

metovum (mētō'vūm) *n.* [Gk. *meta*, after; *L. ovum*, egg.] An egg-cell surrounded by nutritive material.

metoxenous (mētōk'sēnūs) *a.* [Gk. *meta*, after; *xenos*, guest.] Parasitic on different hosts at different stages in life-history; heteroecious.

metra (mē'trā) *n.* [Gk. *metra*, womb.] The uterus.

metraterm (mē'trātērm) *n.* [Gk. *metra*, womb; *termā*, end.] Terminal portion of uterus in trematodes.

metrocyte (mē'trōsīt) *n.* [Gk. *meter*, mother; *kytos*, hollow.] A cell that has originated other cells by division; mother-cell.

metrogonidium (mē'trōgōnīd'ium) *n.* [Gk. *meter*, mother; *dim.* of *gone*, seed.] A gonidium which produces new gonidia by division, in lichens.

metula (mē'tūlā) *n.* [*Dim.* of *L. meta*, end-post.] A spore-bearing branch having flask-shaped outgrowths, as in certain fungi.

M-factor,—a certain antigen in erythrocytes of higher animals.

micella (mī'sēl'ā) *n.* [*L. dim.* of *mica*, morsel.] Hypothetical unit, *q.v.*; an orderly aggregate of chain-like molecules.

micraesthetes (mīkrēsthē'tēz) *n. plu.* [Gk. *mikros*, small; *aisthetes*, perceiver.] The smaller sensory organs of Placophora.

micrander (mīkrān'dēr) *n.* [Gk. *mikros*, small; *aner*, male.] A dwarf male, as of certain green algae.

micraner (mī'krānēr) *n.* [Gk. *mikros*, small; *aner*, male.] A dwarf male ant.

micrergate (mīkrēr'gāt) *n.* [Gk. *mikros*, small; *ergates*, worker.] A dwarf worker ant.

micro-aerophiles, — organisms requiring less oxygen than is present in the air.

microbe (mī'krōb) *n.* [Gk. *mikros*, small; *bios*, life.] A bacterium; a micro-organism.

microbiology (mī'krōbīōl'ōjī) *n.* [Gk. *mikros*, small; *bios*, life; *logos*, discourse.] Biology of microscopic organisms.

microbion,—microbe.

microbiophagy (mī'krōbīōf'ājī) *n.* [Gk. *mikros*, small; *bios*, life; *phagein*, to consume.] Destruction or lysis of micro-organisms by a phage.

microbiota (mī'krōbīō'tā) *n.* [Gk. *mikros*, small; *bionai*, to live.] Flora and fauna composed of microscopical organisms.

microblast (mī'krōblāst) *n.* [Gk. *mikros*, small; *blastos*, bud.] An erythroblast smaller than normal.

microcaltrops (mī'krōkāl'trōps) *n.* [Gk. *mikros*, small; *A.S. coltraeppē*, kind of thistle.] A primitive tetraaxon, or euaster with four persistent rays.

microcentrosome,—centriole.

microcentrum (mī'krōsēn'trūm) *n.* [Gk. *mikros*, small; *kentron*, centre.] The dynamic centre of a cell, composed of centrosomes; kinetodonucleus.

microcephalic (mī'krōkēfāl'ik, -sēf-) *a.* [Gk. *mikros*, small; *kephale*, head.] With abnormally small head; having a cranial capacity of under 1350 c.c.; *cf.* megacephalic, mesocephalic.

microchaeta (mī'krōkē'tā) *n.* [Gk. *mikros*, small; *chaeta*, hair.] A small bristle, as on body of certain insects.

microchromosome (mī'krōkrō'mō-sōm) *n.* [Gk. *mikros*, small; *chroma*, colour; *soma*, body.] A chromosome considerably smaller than the other chromosomes of the same type of nucleus; M-chromosome.

microconidium (mī'krōkōnid'fūm) *n.* [Gk. *mikros*, small; *konis*, dust; *idion*, *dim.*] A comparatively small conidium.

microconjugant (mī'krōkōn'joogānt) *n.* [Gk. *mikros*, small; *L. conjugare*, to unite.] A motile ciliated free-swimming conjugant or gamete

which attaches itself to a macroconjugant and fertilises it.

microcyclic (mī'krōsik'lik) *a.* [Gk. *mikros*, small; *kyklos*, circle.] Having a simple or short cycle; with haplophase or gametophyte stage only. *Opp.* macrocyclic.

microcyst (mī'krōsīst) *n.* [Gk. *mikros*, small; *kystis*, bladder.] A resting-spore stage of slime fungi.

microcytase (mī'krōsī'tās) *n.* [Gk. *mikros*, small; *kytos*, hollow.] The enzyme of microphages or smaller leucocytes.

microcytes (mī'krōsīts) *n. plu.* [Gk. *mikros*, small; *kytos*, hollow.] Blood-corpuscles about half the size of erythrocytes, numerous in diseased conditions.

microdont (mī'krōdōnt) *a.* [Gk. *mikros*, small; *odous*, tooth.] With comparatively small teeth.

micro-elements, — trace-elements, *q.v.*

microevolution (mī'krōēvōlū'shūn) *n.* [Gk. *mikros*, small; *L. evolvere*, to unroll.] Evolutionary processes that can be noticed within a relatively brief period, as during a human life-time; evolution due to gene mutation and recombination. *Opp.* macro-evolution

microfilaria (mī'krōflā'riā) *n.* [Gk. *mikros*, small; *L. filum*, thread.] The embryo of a Filaria.

microgamete (mī'krōgāmēt') *n.* [Gk. *mikros*, small; *gametes*, spouse.] The smaller of two conjugant gametes, regarded as male.

microgametoblast (mī'krōgāmēt'tō-blāst) *n.* [Gk. *mikros*, small; *gametes*, spouse; *blastos*, bud.] Intermediate stage between microgametocyte and microgamete in certain Sporozoa.

microgametocyte (mī'krōgāmē'tōsīt) *n.* [Gk. *mikros*, small; *gametes*, spouse; *kytos*, hollow.] Cell developed from merozoite in certain protozoa, giving rise to microgametes.

microgametogenesis (mī'krōgāmē'tōjēn'ēsīs) *n.* [Gk. *mikros*, small;

- gametes*, spouse ; *genesis*, descent.] Development of microgametes or spermatozoa.
- microgametophyte** (mī'krögāmē'tō-fit) *n.* [Gk. *mikros*, small ; *gametes*, spouse ; *phyton*, plant.] The male gametophyte developed from a microspore, *opp.* megagametophyte.
- microgamy** (mīkrög'āmi) *n.* [Gk. *mikros*, small ; *gamos*, marriage.] Syngamy between smallest individuals produced by fission or gemmation, as in Foraminifera ; merogamy.
- microglia** (mīkrögli'ā, mī'kröglē'ā) *n. plu.* [Gk. *mikros*, small ; *glia*, glue.] Mesodermal phagocytic cells in grey and white nervous matter ; mesoglia.
- microgonidium** (mī'krögōnid'ium) *n.* [Gk. *mikros*, small ; *gonos*, offspring ; *idion*, *dim.*] A comparatively small gonidium ; a male gamont or gametocyte.
- microgyne** (mī'kröjīnē) *n.* [Gk. *mikros*, small ; *gyne*, female.] Dwarf female ant.
- microhabitat** (mī'kröhāb'itāt) *n.* [Gk. *mikros*, small ; L. *habitare*, to inhabit.] The immediate special environment of an organism, a small place in the general habitat ; *cf.* niche.
- microhenad** (mī'kröhēn'ād) *n.* [Gk. *mikros*, small ; *henas*, unit.] A filter-passer.
- microlecithal** (mī'krölēs'ithāl) *a.* [Gk. *mikros*, small ; *lekithos*, yolk.] Containing little yolk.
- microleucoblast** (mī'krölū'köbläst, -loo-) *n.* [Gk. *mikros*, small ; *leukos*, white ; *blastos*, bud.] Myeloblast.
- microleucocyte** (mī'krölū'kösīt, -loo-) *n.* [Gk. *mikros*, small ; *leukos*, white ; *kytos*, hollow.] A small amoebocyte.
- micromere** (mī'krömēr) *n.* [Gk. *mikros*, small ; *meros*, part.] A cell of upper or animal hemisphere in meroblastic and other eggs.
- micromerozoite** (mī'krömēr'özōīt) *n.* [Gk. *mikros*, small ; *meros*, part ; *zoon*, animal.] Cell derived from microschizont and developing into gametocyte in Haemosporidia.
- micromesentery** (mī'krömēs'entēri, -mēz-) *n.* [Gk. *mikros*, small ; *mesos*, middle ; *enteron*, gut.] A secondary incomplete mesentery in Zoantharia.
- micromutation** (mī'krömūtā'shūn) *n.* [Gk. *mikros*, small ; L. *mutare*, to change.] Mutation at only one gene locus ; genovariation, point mutation, transgenation.
- micromyelocyte** (mī'krōmī'ēlōsīt) *n.* [Gk. *mikros*, small ; *myelos*, marrow ; *kytos*, hollow.] A small heterophil myelocyte.
- micron** (mī'krōn) *n.* [Gk. *mikros*, small.] Micromillimetre, one-thousandth part of a millimetre ; symbol : μ .
- micronemic** (mī'krōnē'mik) *a.* [Gk. *mikros*, small ; *nema*, thread.] *Pert.* or having small hyphae ; micronemeous.
- micronephridia** (mī'krōnēfrīd'ia) *n. plu.* [Gk. *mikros*, small ; *nephros*, kidney ; *idion*, *dim.*] Small nephridia ; meronephridia.
- micront** (mī'krōnt) *n.* [Gk. *mikros*, small ; *on*, being.] A small cell formed by schizogony, itself giving rise to microgametes.
- micronucleocyte** (mī'krōnū'klēōsīt) *n.* [Gk. *mikros*, small ; L. *nucleus*, kernel ; Gk. *kytos*, hollow.] An amoebocyte with a relatively small nucleus.
- micronucleus** (mī'krōnū'klēūs) *n.* [Gk. *mikros*, small ; L. *nucleus*, kernel.] The smaller, reproductive nucleus of many protozoa, in close proximity to meganucleus ; gononucleus.
- micro-nutrients**,—substances essential to health of organisms, but required in minute quantity ; *e.g.* trace elements, *q.v.*
- micro-organism** (mī'krō-ōr'gānizm) *n.* [Gk. *mikros*, small ; *organon*, instrument.] A microscopic organism ; microbe ; protist.
- microparasite** (mī'krōpār'āsīt) *n.* [Gk. *mikros*, small ; *para*, beside ; *sitos*, food.] A parasite of microscopic size.

microphages (mī'krōfā'jēz) *n. plu.* [Gk. *mikros*, small; *phagein*, to eat.] Chiefly the polymorpho-nuclear heterophil leucocytes.

microphagic (mī'krōfāj'ik) *a.* [Gk. *mikros*, small; *phagein*, to eat.] Feeding on minute organisms or particles, *appl.* protozoa; microphagous, feeding on small prey, *appl.* agnathous fishes. *Opp.* macrophagous.

microphagocyte (mī'krōfāg'ōsīt) *n.* [Gk. *mikros*, small; *phagein*, to eat; *kytos*, hollow.] A microphage or small phagocyte of blood.

microphanerophyte (mī'krōfān'ērō-fit) *n.* [Gk. *mikros*, small; *phaneros*, manifest; *phyton*, plant.] Tree or shrub from 2 to 8 metres in height.

microphil (mī'krōfil) *a.* [Gk. *mikros*, small; *philein*, to love.] Tolerating only a narrow range of temperature, *appl.* certain bacteria; microphilic. *n.* Microphile.

microphyllous (mī'krōfil'ūs) *a.* [Gk. *mikros*, small; *phyllon*, leaf.] With small leaves.

microphyte (mī'krōfit) *n.* [Gk. *mikros*, small; *phyton*, plant.] Any microscopic plant.

microphytology (mī'krōfitōl'ōji) *n.* [Gk. *mikros*, small; *phyton*, plant; *logos*, discourse.] Science of microphytes; bacteriology.

microplankton (mī'krōplāng'ktōn) *n.* [Gk. *mikros*, small; *planktos*, wandering.] Small organisms drifting with the surrounding water, somewhat larger than those of nanoplankton, *q.v.*

micropodous (mīkrōp'ōdūs) *a.* [Gk. *mikros*, small; *pous*, foot.] With rudimentary or small foot or feet.

micropore (mī'krōpōr) *n.* [Gk. *mikros*, small; *poros*, channel.] A small pore in a Chiton shell, containing a sense-organ.

micropterism (mīkrōp'tērizm) *n.* [Gk. *mikros*, small; *pteron*, wing.] Condition of having unusually small wings, as in some insects.

micropterous (mīkrōp'tērūs) *a.* [Gk. *mikros*, small; *pteron*, wing.] Having small hind wings invisible till tegmina are expanded, as in some insects; with small or rudimentary fins.

micropyle (mī'krōpīl) *n.* [Gk. *mikros*, small; *phyle*, gate.] Aperture for admission of pollen-tube at ovule apex; aperture between hilum and point of radicle; small opening in cyst wall of macrogamete, for entry of microgamete; pore of oocyst; aperture in egg-membrane for admission of spermatozoon; pore in spongin-coat of sponges for escape of gemmules.

micropyle apparatus,—raised processes or porches, sometimes of elaborate structure, developed round micropyle of certain insect eggs.

micropyrenic (mī'krōpīrē'nīk) *a.* [Gk. *mikros*, small; *pyren*, fruit-stone.] With nuclei markedly smaller than average for the species or other group. *n.* A micropyrenic individual.

microrhabdus (mī'krōrāb'dūs) *n.* [Gk. *mikros*, small; *rhabdos*, rod.] Minute monaxon or rod-like spicule.

microschizogony (mī'krōskīzōg'ōnī) *n.* [Gk. *mikros*, small; *schizein*, to cleave; *gonos*, birth.] Schizogony resulting in small merozoites.

microschizont (mī'krōskīzōnt') *n.* [Gk. *mikros*, small; *schizein*, to cut; *onta*, beings.] A male schizont of certain protozoa.

microsclere (mī'krōsklēr) *n.* [Gk. *mikros*, small; *skleros*, hard.] One of small spicules found lying scattered in tissues of sponges. *Opp.* megasclere.

microseptum (mī'krōsēp'tūm) *n.* [Gk. *mikros*, small; L. *septum*, partition.] An incomplete mesentery of Zoantharia.

microsere (mī'krōsēr) *n.* [Gk. *mikros*, small; L. *serere*, to put in a row.] A successional series of plant communities in a microhabitat.

microsmatic (mī'krōsmāt'ik) *a.* [Gk. *mikros*, small; *osme*, smell.] With feebly-developed sense of smell.

microsome (mī'krōsōm) *n.* [Gk. *mikros*, small; *soma*, body.] Granule of protoplasm as opposed to ground-substance; a minute particle or vesicle in cytoplasm, containing a number of enzymes and partaking in the protein synthesis of the cell.

microsor (mī'krōsōr) *n.* [Gk. *mikros*, small; *soros*, heap.] A sorus containing microsporangia, *opp.* megasorus.

microspecies (mī'krōspē'shēz) *n.* [Gk. *mikros*, small; L. *species*, particular kind.] A small species, or subspecies, with little variability; Jordanon.

microsphere (mī'krōsfēr) *n.* [Gk. *mikros*, small; *sphaira*, globe.] The initial chamber of Foraminifera when very small; centrosphere.

microspheric (mī'krōsfēr'ik) *a.* [Gk. *mikros*, small; *sphaira*, globe.] *Appl.* foraminifera when initial chamber of shell is small.

microsplachnic (mī'krōsplāngk'nik) *a.* [Gk. *mikros*, small; *splangch-non*, entrail.] Small-bodied and long-legged.

microsporangium (mī'krōspōrān'jūm) *n.* [Gk. *mikros*, small; *sporos*, seed; *angeion*, vessel.] A sporangium bearing a number of microspores; pollen sac or anther lobe of phanerogams.

microspore (mīkrōspōr) *n.* [Gk. *mikros*, small; *sporos*, seed.] The spore developed in a microsporangium of heterosporous plants; the cell from which a pollen grain develops; a pollen grain; androspore; the smaller anisospore of Sarcodina.

microsporocyte (mī'krōspō'rōsīt) *n.* [Gk. *mikros*, small; *sporos*, seed; *kytos*, hollow.] The pollen mother cell which produces microspores resulting from two meiosis.

microsporophore (mī'krōspō'rōfōr) *n.* [Gk. *mikros*, small; *sporos*, seed; *pherein*, to bear.] A microsporangium.

microsporophyll (mī'krōspō'rōfīl) *n.* [Gk. *mikros*, small; *sporos*, seed;

phyllon, leaf.] A microsporangium-bearing leaf; stamen.

microsporozyte (mī'krōspō'rōzō'īt) *n.* [Gk. *mikros*, small; *sporos*, seed; *zoon*, animal.] A smaller endogenous sporozoite of Sporozoa.

microstome (mī'krōstōm) *n.* [Gk. *mikros*, small; *stoma*, mouth.] A small opening or orifice.

microstrobilus (mī'krōstrōb'ilūs) *n.* [Gk. *mikros*, small; *strobilos*, cone.] A small cone, as in cycads.

microstylospore (mī'krōstī'lōspōr) *n.* [Gk. *mikros*, small; *stylos*, pillar; *sporos*, seed.] A comparatively small stylospore.

microstylous (mī'krōstīl'ūs) *a.* [Gk. *mikros*, small; *stylos*, pillar.] Having short styles; *appl.* heterostylous flowers.

microtaxonomy (mī'krōtāksōn'ōmī) *n.* [Gk. *mikros*, small; *taxis*, arrangement; *nomos*, law.] Classification and its principles as applied to subspecies, varieties, or races.

microteliospore (mī'krōtēl'īōspōr) *n.* [Gk. *mikros*, small; *telos*, end; *sporos*, seed.] A spore produced in a microtelium.

microtelium (mī'krōtēl'īūm) *n.* [Gk. *mikros*, small; *telos*, end.] Sorus of microcyclic rust fungi.

microtherm (mī'krōthērm) *n.* [Gk. *mikros*, small; *therme*, heat.] A plant of the cold temperate zone.

microtrichia (mī'krōtrīk'īā) *n. plu.* [Gk. *mikros*, small; *thrix*, hair.] Small hairs without basal articulation on insect wings.

microtype (mī'krōtīp) *n.* [Gk. *mikros*, small; L. *typus*, type.] Normal mesentery arrangement of Anthozoa; *cf.* macrotype.

microzoid (mī'krōzō'id) *n.* [Gk. *mikros*, small; *zoon*, animal; *idion*, dim.] Male gamete, as in algae.

microzoid (mī'krōzō'oid) *n.* [Gk. *mikros*, small; *zoon*, animal; *eidōs*, form.] A free-swimming motile ciliated bud of Vorticella and other protozoa.

microzoon (mī'krōzō'ōn) *n.* [Gk. *mikros*, small; *zoon*, animal.] A microscopic animal.

- microzoospore** (mī'krōzō'ōspōr) *n.* [Gk. *mikros*, small; *zoon*, animal; *sporos*, seed.] Small planogamete; small anisospore of Radiolaria.
- microzyma** (mī'krōzī'mā) *n.* [Gk. *mikros*, small; *zyme*, leaven.] A hypothetical ultimate unit, *q.v.*
- microzyme** (mī'krōzīm) *n.* [Gk. *mikros*, small; *zyme*, leaven.] A micro-organism of fermenting or decomposing liquids.
- micton** (mīk'tōn) *n.* [Gk. *miktos*, mixed; *on*, being.] A species resulting from interspecific hybridisation and of which the individuals are interfertile.
- micturition** (mīk'tūrīsh'ūn) *n.* [L. *mingere*, to void water.] Act of voiding contents of urinary bladder; urination.
- mid-body**,—a cell plate or group of granules in equatorial region of spindle in anaphase of mitosis.
- mid-brain**,—middle zone of primitive or embryonic brain; mesencephalon of adults.
- middle lamella**,—the layer derived from the cell plate, and covered on both sides by cellulose in formation of the wall of a plant cell.
- mid-rib**,—the large central vein of a leaf, continuation of the petiole.
- midriff** (mīd'rīf) *n.* [A.S. *mid*, middle; *hrif*, belly.] The diaphragm or muscular partition between thoracic and abdominal cavities.
- Miescher's tubes** [*J. F. Miescher*, Swiss pathologist]. Rainey's tubes, *q.v.*
- migration** (mīgrā'shūn) *n.* [L. *migrare*, to transfer.] Change of habitat, according to season, climate, food-supply, etc., of birds, reindeer, bats, certain fishes, insects, etc.; movements of plants into a new area.
- migratory cell**,—an amoeboid cell or leucocyte of blood; wandering cell.
- miliary** (mīl'īārī) *a.* [L. *milium*, millet.] Of granular appearance; consisting of small and numerous grain-like parts.
- milk-teeth**,—first dentition of mammals, shed after or before birth; deciduous teeth.
- milk-tubes**,—laticiferous vessels.
- milt** (milt) *n.* [A.S. *milte*, spleen.] The spleen; testis of fishes.
- mimetic** (mīmēt'ik) *a.* [Gk. *mimetikos*, imitative.] *Pert.* or exhibiting mimicry.
- mimic** (mīm'ik) *v.* [Gk. *mimikos*, imitating.] To assume, usually for protection, the habits, colour, or structure of another organism.
- mimicry** (mīm'ikrī) *n.* [Gk. *mimikos*, imitating.] Assumption of resemblance in colour or structure as a means of self-protection; camouflage.
- minim** (mīn'im) *n.* [L. *minimus*, least.] An ant of the smallest worker caste.
- minimum, law of the**,—that factor for which an organism or species has the narrowest range of tolerance or adaptability limits its existence; extension of Liebig's law, *q.v.*
- minimus** (mīn'imūs) *n.* [L. *minimus*, least.] Fifth digit of hand or foot.
- minor elements**,—trace-elements, *q.v.*
- Miocene** (mī'ōsēn) *n.* [Gk. *meion*, less; *kainos*, recent.] A Tertiary geological epoch, between Oligocene and Pliocene.
- miostemonous**,—meiostemonous.
- miotic**,—meiotic, *q.v.*; myotic, *q.v.*
- miracidium** (mīr'āsīd'ium) *n.* [Gk. *dim.* of *meirakion*, stripling.] The ciliated embryo or youngest stage in life-history of a trematode.
- miscegenation** (mīs'sējēnā'shūn) *n.* [L. *miscere*, to mix; *genus*, race.] Interbreeding between races or varieties.
- misogamy** (mīsōg'āmī) *n.* [Gk. *misein*, to hate; *gamos*, marriage.] Antagonism to mating; reproductive isolation.
- Mississippian**,—Lower Carboniferous in North America.
- miter**,—mitra.

mitochondria (mĭ'tōkōn'drĭā) *n. plu.* [Gk. *mitos*, thread; *chondros*, grain.] Granular, rod-shaped, or filamentous organellae in cytoplasm, varying in different tissues and functioning in cell respiration and nutrition; chondriosomes, and numerous other synonyms.

mitochondria B.—lysosomes, *q.v.*

mitochondrial sheath,—an envelope containing mitochondrial granules sheathing spiral thread of spermatozoan body or connecting-piece.

mitochondrion,—*sing.* of mitochondria.

mitogenetic (mĭ'tōjēnēt'ĭk) *a.* [Gk. *mitos*, thread; *genesis*, descent.] Inducing cell division; *appl.* influence inducing mitosis in apical meristem and emanating from the same or another apical meristem; *appl.* radiation, Gurwitsch or M-rays, from living matter and supposed to induce mitosis.

mitome (mĭ'tōm) *n.* [Gk. *mitos*, thread.] Reticulum of cell-protoplasm, *opp.* ground-substance.

mitosis (mĭtōs'kĭs) *n.* [Gk. *mitos*, thread; *schizein*, to cleave.] Indirect nuclear division; mitosis.

mitosis (mĭtō'sĭs) *n.* [Gk. *mitos*, thread.] Indirect or karyokinetic nuclear division, with chromosome-formation, spindle-formation, with or without centrosome activity; *opp.* amitosis; *cf.* meiosis.

mitosome (mĭ'tōsōm) *n.* [Gk. *mitos*, thread; *soma*, body.] A body arising from spindle-fibres of secondary spermatocytes, eventually said to form connecting piece and tail envelope of spermatozoon; the spindle-remnant; *cf.* paranucleus.

mitosporangium (mĭ'tōspōrān'jūm) *n.* [Gk. *mitos*, thread; *sporos*, seed; *anggeion*, vessel.] A thin-walled diploid sporangium, producing zoospores by mitoses; *cf.* meiosporangium.

mitospore (mĭ'tōspōr) *n.* [Gk. *mitos*, thread; *sporos*, seed.] A uninucleate diploid zoospore produced in a mitosporangium; *cf.* meiospore.

mitotic (mĭtōt'ĭk) *a.* [Gk. *mitos*, thread.] *Pert.* or produced by mitosis; *appl.* division, figure.

mitotic index,—the number of cells simultaneously in the process of division, out of a total of one thousand cells.

mitotin (mĭ'tōtĭn) *n.* [Gk. *mitos*, thread.] Substance supposed to act with an enzyme mitotase in generating mitogenetic radiation.

mitra (mĭ'trā) *n.* [L. *mitra*, head-band.] A helmet-shaped part of calyx or corolla: the mitriform pileus of certain fungi.

mitral cells,—pyramidal cells with thick basal dendrites, found in molecular layer of olfactory bulb.

mitral valve,—bicuspid valve of the left auriculo-ventricular orifice of the heart.

mitriform (mĭ'trĭfōrm) *a.* [L. *mitra*, head-band; *forma*, shape.] Mitre-shaped.

mixipterygium (mĭk'sĭptērĭj'jūm) *n.* [Gk. *mixis*, mixing; *pterygion*, little wing or fin.] Clasper of male elasmobranchs, medial lobe of pelvic fin.

mixis (mĭk'sĭs) *n.* [Gk. *mixis*, mingling.] The union of sexual cells; karyogamy and karyomixis; fertilisation.

mixochimaera (mĭk'sōkĭmē'rā) *n.* [Gk. *mixis*, mingling; *chimaira*, monster.] A heterokaryotic hypha.

mixochromosome (mĭk'sōkrō'mō-sōm) *n.* [Gk. *mixis*, mixing; *chroma*, colour; *soma*, body.] The new chromosome formed by fusion of a pair, in syndesis or synapsis; zygosome.

mixoploidy (mĭk'sōploĭdĭ) *n.* [Gk. *mixis*, mixing; *haploos*, onefold; *eidōs*, form.] Condition of having cells or tissues with different chromosome numbers in the same individual, as in a chimaera or mosaic.

mixote (mĭk'sōt) *n.* [Gk. *mixis*, mingling.] The product of fusion of reproductive cells whether of gametes or of gametoids; zygote, *q.v.*; zygoid, *q.v.*

mixotrophic (mík'sōtrōf'ik) *a.* [Gk. *mixis*, mixing; *trephein*, to nourish.] Combining holophytic with saprophytic nutrition; obtaining part of nourishment from an outside source; partly parasitic.

mnemic (nē'mik) *a.* [Gk. *mneme*, memory.] *Appl.* theory which attributes hereditary phenomena to latent memory of past generations.

mnemotaxis (nē'mōtāk'sis) *n.* [Gk. *mneme*, memory; *taxis*, arrangement.] Locomotion directed by memory stimulus, as returning to a feeding place and homing.

moderator (mōd'ērātōr) *n.* [L. *moderator*, regulator.] Band of muscle checking excessive distention of right ventricle, as in heart of some mammals.

modification (mōd'ifikā'shūn) *n.* [L. *modus*, measure; *facere*, to make.] A phenotypic change due to environment or function.

modifier (mōd'ifiēr) *n.* [L. *modus*, measure; *facere*, to make.] A factor which modifies the effect of another factor; a gene which modifies function of a gene at a different locus.

modiolus (mōdī'ölūs) *n.* [L. *modiolus*, small measure.] The conical central axis of cochlea of ear; the convergence of muscle fibres close to the angle of the mouth.

modulation (mōd'ülā'shūn) *n.* [L. *modulatus*, measured.] Dedifferentiation and redifferentiation of cells during definitive tissue development; alteration in cells, produced by environmental stimuli, without impairment of their essential character.

modulator (mōd'ülātōr) *n.* [L. *modulatus*, measured.] A band of the spectrum, localised in the red-yellow, green, and blue regions, which evokes colour sensation; a physiological unit of colour reception; *cf.* dominator.

molar (mō'lār) *a.* [L. *molere*, to grind.] Adapted for grinding, as *appl.* teeth; *appl.* buccal glands.

molecular hypothesis,—the supposition that muscle and nerve are

composed of molecules or particles, like the molecules of a magnet, with positive and negative surfaces.

molecular layer,—external layer of cortex of cerebrum and cerebellum; a layer of olfactory bulb; plexiform layer.

Moll's glands,—modified sudoriferous glands between follicles of eyelashes, ciliary glands.

molluscoid (mölūs'koid) *a.* [L. *molluscus*, soft; Gk. *eidos*, like.] Resembling a mollusc; characteristic of a mollusc; *pert.* Molluscoidea.

molt,—*see* moult, ecdysis.

monacanthid (mōn'ākān'thīd) *a.* [Gk. *monos*, alone; *akantha*, thorn.] With one row of ambulacral spines, as certain starfishes.

monactinal (mōnāk'tināl) *a.* [Gk. *monos*, single; *aktis*, ray.] *Appl.* a monactine or single-rayed spicule.

monactinellid (mōnāk'tinēl'id) *a.* [Gk. *monos*, single; *aktis*, ray.] Containing uniaxial spicules only, as certain sponges.

monad (mōn'ād) *n.* [Gk. *monas*, unit.] A primitive organism or organic unit; flagellula form of a protozoan; single cell, instead of tetrad, produced by a spore mother-cell owing to meiotic anomaly.

monadelphous (mōnādēl'fūs) *a.* [Gk. *monos*, single; *adelphos*, brother.] Having stamens united into one bundle by union of filaments.

monadiform (mōnād'ifōrm) *a.* [Gk. *monas*, unit; L. *forma*, shape.] Like a flagellate protozoan.

monamniotic (mōn'amniōt'ik) *a.* [Gk. *monos*, single; *amnion*, foetal membrane.] Having one amnion; *appl.* uniovular twins.

monandrous (mōnān'drūs) *a.* [Gk. *monos*, alone; *aner*, male.] Having only one stamen; having only one male mate.

monarch (mōn'ārک) *a.* [Gk. *monos*, alone; *arche*, beginning.] With only one protoxylem bundle.

monaster (mōnās'tēr) *n.* [Gk. *monos*, alone; *aster*, star.] The single aster of monocentric mitosis.

monaxial (mōnāk'siāl) *a.* [Gk. *monos*, alone; *axon*, axis.] Having one line of axis; uniaxial; having inflorescence developed on primary axis.

monaxon (mōnāk'sōn) *n.* [Gk. *monos*, alone; *axon*, axis.] A type of spicule built upon a single axis; a monaxonic nerve cell.

monaxonic (mōn'āksōn'ik) *a.* [Gk. *monos*, alone; *axon*, axis.] Elongate; *appl.* types of protozoa with one long body-axis; with one axon, *appl.* nerve cell.

monecious,—monoecious, *q.v.*

monembryonic (mōnēm'briōn'ik) *a.* [Gk. *monos*, alone; *embryon*, foetus.] Producing one embryo at a time.

monergic (mōnēr'jik) *a.* [Gk. *monos*, alone; *energōs*, active.] Having one energid; consisting of one nucleated cell.

monestrous,—monoestrous, *q.v.*

monilicorn (mōnīl'ikōrn) *a.* [L. *monile*, necklace; *cornu*, horn.] Having antennae with appearance of a chain of beads.

moniliform (mōnīl'ifōrm) *a.* [L. *monile*, necklace; *forma*, shape.] Arranged like a chain of beads; moniloid, *appl.* spores; toruloid, *appl.* hyphae; constricted at regular intervals, *appl.* nucleus of certain infusoria; with contractions and expansions alternately, as branches of certain roots.

moniliospore (mōnīl'iospōr) *n.* [L. *monile*, necklace; Gk. *sporos*, seed.] Any spore of a moniliform series.

monimostylic (mōn'imōstī'lik) *a.* [Gk. *monimos*, fixed; *stylos*, pillar.] Exhibiting monimostyly, or having quadrate united to squamosal, and sometimes to other bones, as in certain reptiles; *cf.* streptostylic.

monoblast (mōn'ōblāst) *n.* [Gk. *monos*, alone; *blastos*, bud.] A cell, as in spleen, that develops into a monocyte.

monocardian (mōn'ōkâr'diān) *a.* [Gk. *monos*, alone; *kardia*, heart.] Having one auricle and ventricle.

monocarp (mōn'ōkârp) *n.* [Gk.

monos, alone; *karpōs*, fruit.] A monocarpic plant.

monocarpellary (mōn'ōkâr'pēlârī) *a.* [Gk. *monos*, single; *karpōs*, fruit.] Containing a single carpel.

monocarpic (mōn'ōkâr'pik) *a.* [Gk. *monos*, alone; *karpōs*, fruit.] Dying after bearing fruit once.

monocarpous (mōn'ōkâr'pūs) *a.* [Gk. *monos*, alone; *karpōs*, fruit.] Having one ovary developed from the gynoeceum.

monocaryon,—monokaryon.

monocellular,—unicellular.

monocentric (mōnōsēn'trik) *a.* [Gk. *monos*, single; *kentron*, centre.] Having, derived from, or *pert.* a single centre; with a single centre.

monocephalous (mōn'ōkēf'ālūs, -sēf-) *a.* [Gk. *monos*, alone; *kephale*, head.] With one capitulum only.

monocercous (mōn'ōsēr'kūs) *a.* [Gk. *monos*, single; *kerkos*, tail.] With one flagellum, as certain protozoa; uniflagellate.

monoceros (mōnōs'ērūs) *a.* [Gk. *monos*, single; *keras*, horn.] Having one horn only.

monochasium (mōn'ōkâ'ziūm) *n.* [Gk. *monos*, alone; *chasis*, division.] A cymose inflorescence with main axes producing one branch each.

monochlamydeous (mōn'ōklāmīd'-ēūs) *a.* [Gk. *monos*, alone; *chlamys*, cloak.] Apetalous; having calyx but no corolla.

monochorionic (mōn'ōkōriōn'ik) *a.* [Gk. *monos*, single; *chorion*, skin.] Having a single chorion; *appl.* uniovular twins.

monochromatic (mōn'ōkrōmât'ik) *a.* [Gk. *monos*, single; *chroma*, colour.] Having but one colour; unicoloured; colour-blind, seeing brightness but no hue.

monochronic (mōn'ōkrōn'ik) *a.* [Gk. *monos*, alone; *chronos*, time.] Occurring or originating only once.

monociliated (mōn'ōsil'iatēd) *a.* [Gk. *monos*, single; L. *cilium*, eyelid.] Having one flagellum; uniflagellate.

monoclinous (mōn'ōkli'nūs) *a.* [Gk. *monos*, alone; *kline*, couch.] Hermaphrodite, having stamens and pistil in each flower; having gametangium and oogonium originating from the same hypha.

monocondylar (mōn'ōkōn'dilār) *a.* [Gk. *monos*, single; *kondylos*, knuckle.] Having a single occipital condyle, as skull of reptiles and birds; monocondylic, monocondylous.

monocont,—monokont.

monocotyledonous (mōnōkōt'ilē'dōnūs) *a.* [Gk. *monos*, alone; *kotyledon*, cup-shaped hollow.] Having one cotyledon, or embryo-lobe.

monocratic (mōn'ōkrāt'ik) *a.* [Gk. *monos*, single; *kratos*, power.] With the four spores of a tetrad being of the same sex. *Opp.* dicratic.

monocrepid (mōn'ōkrēp'id) *a.* [Gk. *monos*, alone; *krepis*, foundation.] *Appl.* a desma formed by secondary silica deposits on a monaxial spicule.

monocule (mōnōk'ul) *n.* [Gk. *monos*, single; *L. oculus*, eye.] A one-eyed animal, as certain insects and crustaceans.

monocyclic (mōn'ōsik'lik) *a.* [Gk. *monos*, alone; *kyklos*, circle.] Having one cycle; with a single whorl; annual, *appl.* herbs.

monocystic (mōn'ōsis'tik) *a.* [Gk. *monos*, single; *kystis*, bag.] With one stage of encystation.

monocytes (mōn'ōsits) *n. plu.* [Gk. *monos*, alone; *kytos*, hollow.] The group of white blood corpuscles including large mononuclear and transition cells; endothelial leucocytes; histiocytes.

monodactylous (mōn'ōdāk'tilūs) *a.* [Gk. *monos*, alone; *daktylos*, finger.] With one digit, or one claw, only.

monodelphic (mōnōdēl'fik) *a.* [Gk. *monos*, single; *delphys*, womb.] Having uteri more or less united, as in placental mammals; having a single uterus, as *appl.* certain nematodes.

monodelphous,—monadelphous, *q.v.*

monodesmic (mōn'ōdēs'mik, -dēz-) *a.* [Gk. *monos*, single; *desmos*, bond.] *Appl.* scales formed of fused lepidomoria with continuous covering layer of dentine, as some placoid scales.

monodont (mōn'ōdōnt) *a.* [Gk. *monos*, single; *odont*, tooth.] Having one persistent tooth, as male narwhal with one long tusk.

monoecious (mōnē'siūs) *a.* [Gk. *monos*, single; *oikos*, house.] Ambisexual; with male and female flowers on same plant; with sex organs on one gametophyte; hermaphrodite; having either microsporangia or megasporangia on one sporophyte.

monoestrous (mōnē'strūs) *a.* [Gk. *monos*, single; *oistros*, gadfly.] Having one oestrous period in a sexual season; *cf.* polyoestrous.

monofactorial,—unifactorial, *q.v.*

monogamous (mōnōg'āmūs) *a.* [Gk. *monos*, single; *gamos*, marriage.] Consorting with one mate only.

monoganglionic (mōn'ōgāng'gliōnik) *a.* [Gk. *monos*, single; *gangglion*, little tumour.] Having a single ganglion.

monogastric (mōn'ōgās'trik) *a.* [Gk. *monos*, single; *gaster*, stomach.] With only one gastric cavity; with one venter, *appl.* muscles.

monogenesis (mōn'ōjēn'ēsis) *n.* [Gk. *monos*, single; *genesis*, descent.] Asexual reproduction; theory of development of all organisms from single cells; origin of a new form at one place or period.

monogenetic (mōn'ōjēnēt'ik) *a.* [Gk. *monos*, alone; *genesis*, descent.] Reproducing asexually; direct, as *appl.* reproduction; monogenic.

monogenic (mōn'ōjēn'ik) *a.* [Gk. *monos*, single; *genos*, sex.] Producing offspring consisting of one sex; either arrhenogenic or thelygenic; controlled by a single gene.

monogenomic (mōn'ōjēnōm'ik) *a.* [Gk. *monos*, single; *genos*, offspring.] Having a single set of chromosomes.

monogenous (mõnõj'ënüs) *a.* [Gk. *monos*, alone; *genos*, offspring.] Asexual, as *appl.* reproduction.

monogeny (mõnõj'ëni) *n.* [Gk. *monos*, single; *genos*, sex.] Production of offspring consisting of one sex; arrhenogeny and thelygeny.

monogoneutic (mõn'õgõnũ'tik) *a.* [Gk. *monos*, single; *goneuein*, to produce.] Breeding once a year.

monogonoporous (mõn'õgõnõp'õrüs) *a.* [Gk. *monos*, alone; *gonos*, offspring; *poros*, channel.] Having one genital pore common to both male and female organs, as in certain Turbellaria.

monogony (mõnõg'õni) *n.* [Gk. *monos*, alone; *gonos*, offspring.] Asexual reproduction, including schizogony and gemmation.

monogynoecial (mõn'õjinẽ'stäl) *a.* [Gk. *monos*, alone; *gyne*, female; *oikos*, house.] Developing from one pistil; monogynaecial.

monogynous (mõnõj'õnüs) *a.* [Gk. *monos*, alone; *gyne*, female.] Having one pistil only; consort-ing with but one female.

monohybrid (mõn'õhibrid) *n.* [Gk. *monos*, alone; L. *hybrida*, mongrel.] A hybrid offspring of parents differ-ing in one character. *a.* Hetero-zygous for a single pair of factors.

monokaryon (mõn'õkär'õn) *n.* [Gk. *monos*, alone; *karyon*, nut.] A nucleus with a single centriole.

monokont (mõn'õkõnt) *a.* [Gk. *monos*, single; *kontos*, punting-pole.] Uniflagellate.

monolayer (mõn'õlä'ër) *n.* [Gk. *monos*, single; A.S. *leagan*, to lie.] A single homogeneous layer of units, as of molecules, cells, etc.; monomolecular layer.

monolocular,—unilocular.

monolophous (mõn'õlöf'üs) *a.* [Gk. *monos*, alone; *lophos*, crest.] *Appl.* spicules with one ray forked or branched like a crest.

monomastigate (mõn'õmäs'tigät), **monomastigote** (mõn'õmäs'tigõt) *a.* [Gk. *monos*, single; *mastix*, whip.] Having one flagellum, as certain Protista.

monomeniscous (mõn'õmënis'küs) *a.* [Gk. *monos*, alone; *meniskos*, small moon.] Having an eye with only one lens.

monomeric (mõn'õmër'ik) *a.* [Gk. *monos*, alone; *meros*, part.] *Pert.* one segment; derived from one part; bearing a dominant gene at only one of two loci.

monomerosomatous (mõn'õmër'-õsõm'ätüs) *a.* [Gk. *monos*, alone; *meros*, part; *soma*, body.] Having body-segments all fused together, as in certain ins-cts.

monomerous (mõnõm'ërüs) *a.* [Gk. *monos*, alone; *meros*, part.] Con-sisting of one part only; *appl.* flower-whorls.

monometrosis (mõn'õmẽ'trõsis) *n.* [Gk. *monos*, alone; *meter*, mother.] Colony foundation by one female, as by queen in some social Hymen-optera. *Opp.* pleometrosis.

monomial (mõnõ'miäl) *a.* [Gk. *monos*, single; L. *nomen*, name.] *Appl.* a name or designation con-sisting of one term only; *cf.* binomial.

monomorphic (mõn'õmõr'fik) *a.* [Gk. *monos*, single; *morphe*, form.] Developing with no or very slight change of form from stage to stage, as certain protozoa and insects; *cf.* polymorphic; producing spores of one kind only.

monomyaric (mõn'õmiä'rik) *a.* [Gk. *monos*, alone; *mys*, muscle.] With posterior adductor only, anterior adductor being aborted; *appl.* certain bivalves; monomyarian.

mononeuronic (mõn'õnũrõn'ik) *a.* [Gk. *monos*, single; *neuron*, nerve.] With one nerve; *appl.* chromato-phores with single type of innervation.

monont (mõn'õnt) *n.* [Gk. *monos*, alone; *on*, being.] A single in-dividual reproducing without con-jugation, *opp.* sporont or zygote.

mononuclear (mõn'õnũ'klẽär) *a.* [Gk. *monos*, single; L. *nucleus*, kernel.] With one nucleus only; uninuc-lear. *n.* A mononuclear leuco-cyte.

mononychous (mōnōn'ikūs) *a.* [Gk. *monos*, single; *onyx*, claw.] Having a single or uncleft claw.

mononym (mōn'ōnīm) *n.* [Gk. *monos*, single; *onyma*, name.] A designation consisting of one term only; name of a monotypic genus.

monopetalous (mōn'ōpēt'ālūs) *a.* [Gk. *monos*, alone; *petalon*, leaf.] Having one petal only; having petals united all round; *cf.* gamopetalous.

monophagous (mōnōf'āgūs) *a.* [Gk. *monos*, alone; *phagein*, to eat.] Subsisting on one kind of food; *appl.* Sporozoa living permanently in a single cell; *appl.* caterpillars feeding on plants of one genus only; *cf.* stenophagous; *appl.* insects restricted to one species or variety of food plant; *cf.* oligophagous.

monophasic (mōn'ōfā'zik) *a.* [Gk. *monos*, alone; *phainein*, to appear.] *Appl.* condensed life cycle of some trypanosomes, lacking the active stage; *cf.* diphasic.

monophyletic (mōn'ōfilēt'ik) *a.* [Gk. *monos*, alone; *phyle*, tribe.] Derived from a single common parent form; *Opp.* oligophyletic, polyphyletic.

monophyllous (mōn'ōfil'ūs) *a.* [Gk. *monos*, alone; *phyllon*, leaf.] Having one leaf only; unifoliate; having a one-piece calyx.

monophyodont (mōn'ōfi'ōdōnt) *a.* [Gk. *monos*, alone; *phyein*, to produce; *odous*, tooth.] Having only one set of teeth, the milk dentition being absorbed in foetal life or absent altogether.

monoplacid (mōn'ōplās'id) *a.* [Gk. *monos*, alone; *plax*, flat plate.] With one plate only, of any kind.

monoplacula (mōn'ōplāk'ulā) *n.* [Gk. *monos*, alone; *plax*, flat plate.] A single-layered placula.

monoplanetic (mōn'ōplānēt'ik) *a.* [Gk. *monos*, alone; *planetes*, wanderer.] With one stage of motility in life-history; *appl.* formation of zoospores in certain fungi, *opp.* diplanetic; monoplanetary.

monoplanetism (mōn'ōplān'ētizm) *n.* [Gk. *monos*, alone; *planetes*, wanderer.] Condition of having one period of motility in one life-history, as of zoospores in some fungi.

monoplastic (mōn'ōplās'tik) *a.* [Gk. *monos*, alone; *plastos*, formed.] Persisting in one form.

monoploid (mōn'ōploid) *a.* [Gk. *monos*, alone; *haploos*, simple; *eidos*, form.] Having one set of chromosomes, true haploid; in a polyploid series, having the basic haploid chromosome number. *n.* A monoploid organism.

monoplint,—haplint, *q.v.*

monopodal (mōnōp'ōdāl) *a.* [Gk. *monos*, single; *pous*, foot.] Having one supporting structure; with one pseudopodium.

monopodial (mōn'ōpō'diāl) *a.* [Gk. *monos*, alone; *pous*, foot.] Branching from one primary axis acropetally.

monopodium (mōn'ōpō'diūm) *n.* [Gk. *monos*, alone; *pous*, foot.] A single main or primary axis from which all main lateral branches develop.

monopolar,—unipolar, *q.v.*

monopyrenous (mōn'ōpirē'nūs) *a.* [Gk. *monos*, alone; *pyren*, kernel.] Single-stoned, as a fruit.

monorchic (mōnōr'kik) *a.* [Gk. *monos*, single; *orchis*, testis.] Having one testis.

monorefringent (mōn'ōrēfrin'jēnt) *a.* [Gk. *monos*, single; *L. refringere*, to break off.] Singly refracting; isotropic.

monorhinal (mōn'ōri'nāl) *a.* [Gk. *monos*, alone; *rhines*, nostrils.] Having only one nostril, as Cyclostomata; *pert.* one nostril.

monosaccharides (mōn'ōsāk'ārīdz) *n. plu.* [Gk. *monos*, single; *L. saccharum*, sugar.] Simple sugars, *e.g.* glucose, fructose, galactose.

monosepalous (mōn'ōsēp'ālūs) *a.* [Gk. *monos*, alone; *F. sépale*, sepal.] Having a single sepal; having all sepals united into one; *cf.* gamosepalous.

monosiphonic (mön'ösifön'ik) *a.* [Gk. *monos*, alone; *siphon*, tube.] Having tubes of a hydrocaulis distinct from one another, as in certain hydromedusae; having a single central tube in filament, as in certain algae; monosiphonous.

monosome (mön'ösöm) *n.* [Gk. *monos*, alone; *soma*, body.] The unpaired accessory or X-chromosome.

monosomic (mön'ösömik) *a.* [Gk. *monos*, alone; *soma*, body.] Diploid with one chromosome missing.

monospermous (mön'öspēr'mūs) *a.* [Gk. *monos*, single; *sperma*, seed.] One-seeded; monospermic.

monospermy (mön'öspēr'ml) *n.* [Gk. *monos*, single; *sperma*, seed.] Normal fertilisation by entrance of one sperm only into an ovum.

monospondylic (mön'öspöndil'ik) *a.* [Gk. *monos*, alone; *sphondylos*, vertebra.] *Appl.* vertebrae without intercentra.

monosporangium (mön'ösporän'-jium) *n.* [Gk. *monos*, alone; *sporos*, seed; *angeion*, vessel.] A sporangium producing simple spores.

monospore (mön'öspör) *n.* [Gk. *monos*, alone; *sporos*, seed.] A simple or undivided spore.

monosporic (mön'ös-pör'ik) *a.* [Gk. *monos*, single; *sporos*, seed.] *Pert.* or originating from a single spore; monosporial.

monosporous (mön'öspörūs, mönös'-pörūs) *a.* [Gk. *monos*, alone; *sporos*, seed.] Having only one spore or a simple spore.

monostachyous (mön'östāk'iūs) *a.* [Gk. *monos*, alone; *stachys*, corn-ear.] With only one spike.

monostele (mön'östē'lē) *n.* [Gk. *monos*, alone; *stele*, column.] An axis stele when only one is the direct continuation of plerome.

monostelic (mön'östēl'ik) *a.* [Gk. *monos*, alone; *stele*, column.] Having a single stele or central cylinder running through whole axis.

monosterigmatic (mön'östērigmät'-ik) *a.* [Gk. *monos*, alone; *sterigma*,

support.] Having a single sterigma; *appl.* fungi.

monostichous (mönös'tikūs) *a.* [Gk. *monos*, single; *stichos*, row.] Arranged in one row; along one side of an axis.

monostigmatic (mön'östig'mätūs) *a.* [Gk. *monos*, single; *stigma*, mark.] With one stigma only.

monostylous (mön'östī'lūs) *a.* [Gk. *monos*, alone; *stylos*, pillar.] Having one style only.

monosy (mön'ösi) *n.* [Gk. *monos*, alone.] Separation of parts normally fused.

monosymmetrical (mön'ösimēt'rikāl) *a.* [Gk. *monos*, alone; *symmetria*, due proportion.] Having only one plane of bilateral symmetry; zygomorphic.

monothalamous (mön'öthāl'āmūs) *a.* [Gk. *monos*, single; *thalamos*, chamber.] Unilocular; single-chambered; monothalamic; *appl.* fruits formed from single flowers; having one gynoeceium; *appl.* galls; *appl.* shells of foraminifera and other protozoa.

monothecal (mön'öthē'kāl) *a.* [Gk. *monos*, alone; *theke*, box.] Having one locus; single-chambered.

monothelious (mön'öthē'liūs) *a.* [Gk. *monos*, alone; *thelys*, female.] *Appl.* a female consorting with more than one male.

monotocous (mönöt'ökūs) *a.* [Gk. *monos*, single; *tokos*, offspring.] Uniparous, having one offspring at a birth; monocarpic, *q.v.*

monotrichous (mönöt'rikūs) *a.* [Gk. *monos*, single; *thrix*, hair.] Having only one flagellum at one pole; monotrichic, monotrichate.

monotrochal (mönöt'rökāl) *a.* [Gk. *monos*, single; *trochos*, wheel.] Having a prototroch only, as trochosphere of certain Polychaeta.

monotrochous (mönöt'rökūs) *a.* [Gk. *monos*, alone; *trochos*, wheel.] Having a single-piece trochanter, as in most stinging Hymenoptera.

monotrophic (mön'ötröf'ik) *a.* [Gk. *monos*, alone; *trophē*, nourishment.] Subsisting on one kind of food.

monotype (mōn'ōtīp) *n.* [Gk. *monos*, alone; *typos*, type.] Single type which constitutes species or genus; a unique holotype.

monotypic (mōn'ōtīp'ik) *a.* [Gk. *monos*, alone; *typos*, type.] *Pert.* monotype; having only one species, *appl.* genus; having no subspecies, *appl.* species; haplotypic, *opp.* polytypic.

monovalent,—univalent.

monovoltine,—univoltine.

monoxenous (mōnōks'ēnūs, mōnō-zēn'ūs) *a.* [Gk. *monos*, alone; *xenos*, host.] Inhabiting one host only, *appl.* parasites; *cf.* heteroxenous.

monoxylic (mōn'ōzi'lik) *a.* [Gk. *monos*, alone; *xylon*, wood.] Having wood formed as a continuous ring, *appl.* stems.

monozoic (mōn'ōzō'ik) *a.* [Gk. *monos*, alone; *zoon*, animal.] Producing one sporozoite only; *appl.* archisporos forming only one sporozoite on liberation from cyst.

monozygotic (mōn'ōzīgōt'ik) *a.* [Gk. *monos*, alone; *zygos*, yoked.] Developing from one fertilised ovum, as identical twins; monozygous; uniovular.

Monro, foramen of, [*A. Monro*, Scottish anatomist]. The inter-ventricular foramen.

mons pubis,—prominence due to subcutaneous fatty tissue in front of symphysis pubis; mons Veneris.

montane (mōn'tān) *a.* [L. *montanus*, *pert.* mountains.] *Pert.* mountains; *appl.* flora and fauna; monticolous.

Montgomery's glands [*W. F. Montgomery*, Irish physician]. Areolar glands of nipple, prominent during lactation.

monticolous (mōntik'ōlūs) *a.* [L. *mons*, mountain; *colere*, to inhabit.] Inhabiting mountainous regions.

monticulus (mōntik'ūlūs) *n.* [L. *dim. mons*, mountain.] Largest part of superior vermis of cerebellum.

mores (mō'rēz) *n. plu.* [L. *mos*, wont.] Groups of organisms preferring the same habitat, having the same reproductive season, and

agreeing in their general reactions to the physical environment.

Morgagni, columns of [*G. B. Morgagni*, Italian anatomist]. Rectal columnus, *q.v.*

Morgagni, hydatid of,—see hydatid.

moriform (mō'rifōrm) *a.* [L. *morum*, mulberry; *forma*, form.] Formed in a cluster resembling aggregate fruit; shaped like a mulberry.

morphallaxis (mōrfāl'āksis) *n.* [Gk. *morphe*, form; *allaxis*, changing.] Transformation of one part into another, in regeneration of parts, *opp.* epimorphosis; gradual growth or development into a particular form.

morphogenesis (mōr'fōjēn'ēsīs) *n.* [Gk. *morphe*, form; *genesis*, descent.] The development of shape; origin and development of organs or parts of organisms.

morphogenetic (mōr'fōjēnēt'ik) *a.* [Gk. *morphe*, form; *genesis*, descent.] *Pert.* morphogenesis; *appl.* internal secretions which influence growth and nutrition of organs or organisms.

morphogenic hormone,—the chemical substance released by the primary organiser in development; evocator.

morphogens (mōr'fōjēnz) *n. plu.* [Gk. *morphe*, form; *gennaein*, to produce.] Substances interacting in presence of an evocator, and determining the pattern of embryonic development.

morphogeny,—morphogenesis.

morphologic index,—ratio expressing relation of trunk to limbs.

morphology (mōrfōl'ōji) *n.* [Gk. *morphe*, form; *logos*, discourse.] The science of form and structure of plants and animals, as distinct from consideration of functions.

morphon (mōr'fōn) *n.* [Gk. *morphe*, form; *on*, being.] A definitely formed individual, *opp.* a bion.

morphoplasm (mōr'fōplāzm) *n.* [Gk. *morphe*, form; *plasma*, formation.] Formative protoplasm; kinoplasm; protoplasmic reticulum, *opp.* cell sap.

morphoplasia (môr'föplä'si) *n.* [Gk. *morphe*, form; *plassein*, to mould.] Formative potentiality of a growing organism.

morphosis (môr'fösis, môrfö'sis) *n.* [Gk. *morphosis*, form.] The manner of development of part or organism.

morphotic (môrföt'ik) *a.* [Gk. *morphosis*, form.] Formative; tissue-building; *pert.* morphosis.

morphotype (môr'fötip) *n.* [Gk. *morphe*, form; *typos*, pattern.] Type specimen of one of the forms of a polymorphic species.

Morren's glands [C. F. A. Morren, Belgian zoologist]. Calciferous glands of earth-worms.

morula (môr'ülä) *n.* [L. *morum*, mulberry.] A solid cellular globular mass, the first result of ovum segmentation; stage in development preceding gastrula; a globular aggregation of developing male gametes, a sperm morula; a coelomocyte containing refractive globules, morula-shaped cell.

morulation (môr'ülä'shün) *n.* [L. *morum*, mulberry.] Morula formation by segmentation.

morulit (môr'ülit) *n.* [L. *morum*, mulberry.] Nucleolus or karyosome,

mosaic (mözä'ik) *n.* [It. *mosaica*, mosaic.] Hybrid having unblended parental allelomorphic characters; chimaera; a virus disease of plants; *appl.* theory that each ommatidium in compound eye of arthropods receives a portion of an image, the several portions being integrated as the total image by the brain.

moschate (mö's'kât) *a.* [Gk. *moschos*, musk.] Having or resembling the odour of musk; musky.

moss-fibres,—nerve fibres branching around cells of internal layer of cerebellar cortex.

mossy cells,—protoplasmic astrocytes.

motoneuron (mô'tönü'rön) *n.* [L. *movere*, to move; Gk. *neuron*, nerve.] A motor neurone, *q.v.*

motor (mö'tör) *a.* [L. *movere*, to move.] *Pert.* or connected with movement; *appl.* nerves, etc.

motor areas,—areas of brain where motion is correlated.

motor end-organ,—terminal ramification of axis-cylinder in striated muscle; less correctly, end-plate.

motor neurones,—nerve cells concerned in regulation of movement.

motor oculi,—the third cranial nerve.

motor unit,—a motor neurone and associated muscle fibres.

motorium (mötö'riüm) *n.* [L. *movere*, to move.] Motor areas; part of nervous system where motorial sense is localised.

moult (mölt) *v.* [L. *mutare*, to change.] To cast or shed periodically the outer covering, whether of feathers, hair, skin, or horns. *n.* The process of shedding; ecdysis.

moulting glands,—ecdysial glands, *q.v.*

moulting hormone,—secreted by ecdysial glands or cells in dorsal region of protocerebrum, in Arthropoda; ecdysone.

mouth part,—a head or mouth appendage of arthropods.

M-rays,—mitogenetic rays.

mucedinous (müséd'inüs) *a.* [L.L. *mucedo*, mould, from L. *mucus*, mucus.] Having loosely spaced white filaments, like a mould fungus.

mucid (mü's'id) *a.* [L. *mucidos*, mouldy.] Mouldy; slimy.

mucific (müsif'ik) *a.* [L. *mucus*, mucus; *facere*, to make.] Mucus-secreting.

muciform (mü'siförm) *a.* [L. *mucus*, mucus; *forma*, shape.] Resembling mucus.

mucigen (mü'sijën) *n.* [L. *mucus*, mucus; Gk. *-genes*, producing.] The substance of granules in cells of mucous membrane; mucinogen.

mucilage (mü'silēj) *n.* [L. *mucus*, mucus.] A substance of varying composition, hard when dry, swelling and slimy when moist, produced in cell-walls of certain plants.

mucilaginous (mü'silāj'inüs) *a.* [L. *mucus*, mucus.] *Pert.*, containing, resembling, or composed of mucilage; *appl.* certain glands of joints; *appl.* cells, ducts, canals, slits.

mucin (mū'sin) *n.* [L. *mucus*, mucus.] A glycoprotein of mucus, occurring in, or secreted by, certain cells and glands.

mucinogen (mūsīn'ojēn) *n.* [L. *mucus*, mucus; Gk. *-genes*, producing.] A substance producing mucin, occurring in granules of mucous gland cells.

muciparous (mūsīp'ārūs) *a.* [L. *mucus*, mucus; *parere*, to beget.] Mucus-secreting.

mucocellulose (mū'kösēl'ülōs) *n.* [L. *mucus*, mucus; *cellula*, small cell.] Cellulose mixed with mucous substance, as in some seeds and fruits.

mucocutaneous (mū'kōkūtā'nēūs), **mucodermal** (mū'kōdēr'māl) *a.* [L. *mucus*, mucus; *cutis*, skin; Gk. *derma*, skin.] *Pert.* skin and mucous membrane.

mucoid (mū'koid) *a.* [L. *mucus*, mucus; Gk. *eidos*, like.] *Pert.* or caused by mucus or mucilage; *appl.* degeneration, tissue. *n.* A mucoprotein of cartilage, bone, tendon, etc.

mucoproteins (mū'köprō'tēinz) *n. plu.* [L. *mucus*, mucus; Gk. *protos*, first.] Compounds of protein with a carbohydrate, include mucins and mucoids; glucoproteins or glycoproteins.

mucosa (mūkō'sä) *n.* [L. *mucus*, mucus.] A mucous membrane.

mucoserous (mū'kösē'rūs) *a.* [L. *mucus*, mucus; *serum*, whey.] Secreting mucus and body fluid.

mucous (mū'küś) *n.* [L. *mucus*, mucus.] Secreting, containing, or *pert.* mucus; *appl.* glands, membranes, sheaths, tissue.

mucro (mū'krō) *n.* [L. *mucro*, sharp point.] A stiff or sharp point abruptly terminating an organ; a small awn; pointed keel or sterile third carpel, as in pine, posterior tip of cuttle-bone; a projection below orifice in Polyzoa; distal part of furcula in Collembola.

mucronate (mū'krōnāt) *a.* [L. *mucro*, sharp point.] Abruptly terminated by a sharp spine; mucroniferous.

mucronulate (mūkrōn'ülāt) *a.* [L.

mucro, sharp point.] Tipped with small mucro.

mucronule (mū'krōnül) *n.* [L. *mucro*, sharp point.] A small mucro.

muculent (mū'külēnt) *a.* [L. *mucus*, mucus.] Like mucus; containing mucus; mucilaginous.

mucus (mū'küś) *n.* [L. *mucus*, mucus.] The slimy, glairy substance secreted by goblet cells of a mucous membrane or by mucous cells of a gland.

mulberry body,—morula, *q.v.*

Müllerian bodies [*F. Müller*, German naturalist]. Structures containing albuminous and oily substances in trichilium, eaten by tropical ants.

Müllerian ducts [*J. Müller*, German anatomist]. Paramesonephric ducts, arising on lateral aspects of mesonephric or Wolffian ducts.

Müllerian eminence [*J. Müller*, German anatomist]. A colliculus or elevation of ventral part of cloaca at entrance of Müllerian ducts and between openings of Wolffian ducts.

Müller's fibres [*H. Müller*, German anatomist]. Neuroglial fibres forming framework supporting nervous layers of retina; sustentacular or radial fibres of Müller.

Müller's larva [*J. Müller*, German zoologist]. Ciliated larva of Polycladida; cephalotrocha.

Müller's muscle [*H. Müller*, German anatomist]. A plain muscle across inferior orbital fissure; a plain muscle of eyelids.

multangular (mültäng'gülar) *a.* [L. *multus*, many; *angulus*, angle.] *Appl.* two carpal bones, greater and lesser multangulum, respectively trapezium and trapezoid.

multiaxial,—multiaxial.

multiarticulate (mül'tiärtik'ülāt) *a.* [L. *multus*, many; *articulus*, joint.] With many articulations; many-jointed; polyarthric.

multiaxial (mül'tiäk'siäl) *a.* [L. *multus*, many; *axis*, axis.] Having or *pert.* several axes.

multicamerate (mül'tikām'erāt) *a.* [L. *multus*, many; *camera*, chamber.] Multilocular; with many chambers.

- multicapsular** (mül'tikäp'sülär) *a.* [L. *multus*, many; *capsula*, little chest.] With many capsules.
- multicarinate** (mül'tikär'ínät) *a.* [L. *multus*, many; *carina*, keel.] Having many carinae or ridges.
- multicarpellary** (mül'tikär'päläri) *a.* [L. *multus*, many; Gk. *karpós*, fruit.] Having many carpels; polycarpellary.
- multicellular** (mül'tisäl'ülär) *a.* [L. *multus*, many; *cella*, cell.] Many-celled; consisting of more than one cell.
- multicentral** (mül'tisän'träl) *a.* [L. *multus*, many; *centrum*, centre.] With more than one centre of growth or development.
- multiciliate** (mül'tisil'íät) *n.* [L. *multus*, many; *cilium*, eyelid.] With some or many cilia.
- multicipital** (mül'tisip'ítäl) *a.* [L. *multus*, many; *caput*, head.] With many heads or branches arising from one point.
- multicostate** (mül'tikös'tät) *a.* [L. *multus*, many; *costa*, rib.] With many ribs or veins; with many ridges.
- multicuspid** (mül'tiküs'pid) *a.* [L. *multus*, many; *cuspis*, spear-head.] With several cusps or tubercles; *appl.* molar teeth.
- multidentate** (mül'tidän'tät) *a.* [L. *multus*, many; *dens*, tooth.] With many teeth, or indentations.
- multidigitate** (mül'tidij'ítät) *a.* [L. *multus*, many; *digitus*, finger.] Many-fingered.
- multifactorial** (mül'tifäktö'ryäl) *a.* [L. *multus*, many; *facere*, to make.] *Pert.* or controlled by a number of genes; polygenic.
- multifarious** (mül'tifä'riüs) *a.* [L. *multifarius*, manifold.] Arranged in numerous series or rows; polystichous.
- multifid** (mül'tifid) *a.* [L. *multus*, many; *findere*, to cleave.] Having many clefts or divisions.
- multiflagellate** (mül'tifläj'älät) *a.* [L. *multus*, many; *flagellum*, whip.] Furnished with several or many flagella; polymastigote, *q.v.*
- multiflorous** (mül'tiflö'rüs) *a.* [L. *multus*, many; *flos*, flower.] Bearing many flowers.
- multifoliate** (mül'tifö'liät) *a.* [L. *multus*, many; *folium*, leaf.] With many leaves.
- multifoliolate** (mül'tifö'liölät) *a.* [L. *multus*, many; *foliolum*, small leaf.] With many leaflets.
- multiform** (mül'tiförm) *a.* [L. *multus*, many; *forma*, form.] Occurring in, or containing, different forms; *appl.* layer: inner cell-lamina of cerebral cortex; polymorphous.
- multiganglionate** (mül'tigäng'-gliönät) *a.* [L. *multus*, many; Gk. *gangglion*, small tumour.] With several or many ganglia.
- multigyrate** (mül'tijí'rät) *a.* [L. *multus*, many; *gyrus*, circle.] With many gyri; tortuous.
- multijugate** (mül'tijooğ'ät) *a.* [L. *multus*, many; *jugum*, yoke.] Having many pairs of leaflets.
- multilacunar** (mül'tiläkü'när) *a.* [L. *multus*, many; *lacuna*, cavity.] With many lacunae; having a number of leaf-gaps, *appl.* nodes.
- multilaminar** (mül'tiläm'inät) *a.* [L. *multus*, many; *lamina*, plate.] Composed of several or many laminae.
- multilobate** (mül'tilö'bät) *a.* [L. *multus*, many; *lobus*, lobe.] Composed of many lobes; multilobar.
- multilobulate** (mül'tilöb'ülät) *a.* [L. *multus*, many; *lobulus*, small lobe.] Having many lobules.
- multilocular** (mül'tilök'ülär) *a.* [L. *multus*, many; *loculus*, compartment.] Having many cells or chambers; *appl.* spore: sporidesm; multiloculate.
- multinervate** (mül'tinër'vät) *a.* [L. *multus*, many; *nervus*, sinew.] With many nerves or nervures.
- multinodal** (mül'tinö'däl) *a.* [L. *multus*, many; *nodus*, knot.] With many nodes; multinodate.
- multinomial** (mül'tinö'miäl) *a.* [L. *multus*, many; *nomen*, name.] *Appl.* a name or designation composed of several names or terms; *cf.* binomial, trinomial.

multinucleate (mül'tinū'klēāt) *a.* [L. *multus*, many; *nucleus*, kernel.] With several or many nuclei; polykaryc.

multinucleolate (mül'tinūklē'ölāt) *a.* [L. *multus*, many; *nucleolus*, small kernel.] With more than one nucleolus.

multiovulate (mül'tiö'vülāt) *a.* [L. *multus*, many; *ovum*, egg.] With several or many ova.

multiparous (mültip'ärüs) *a.* [L. *multus*, many; *parere*, to beget.] Bearing several, or more than one, at a birth; developing several or many lateral axes.

multipennate (mül'tipēn'āt) *a.* [L. *multus*, many; *penna*, feather.] *Appl.* muscle containing a number of extensions of its tendon of insertion.

multipinnate (mül'tipin'āt) *a.* [L. *multus*, many; *pinnatus*, feathered.] Divided into many lateral processes or leaflets; many times pinnate.

multiple corolla,—a corolla with two or more whorls of petals.

multiple diploid,—allopolyploid, *q.v.*

multiple factors,—genes having a joint or cumulative effect.

multiple fission,—repeated division; division into a large number of parts or spores.

multiplicate (mül'tiplikāt) *a.* [L. *multiplicare*, to make manifold.] Consisting of many; having many folds or plicae.

multipolar (mül'tipö'lär) *a.* [L. *multus*, many; *polus*, axis-end.] *Appl.* nerve-cells with more than two axis-cylinder processes; involving more than two poles, *appl.* mitosis, usually pathological.

multiporous (mül'tipörüs) *a.* [L. *multus*, many; Gk. *poros*, passage.] Having many pores.

multiradiate (mül'tirä'diāt) *a.* [L. *multus*, many; *radius*, ray.] Many-rayed.

multiramose (mül'tirä'mös) *a.* [L. *multus*, many; *ramus*, branch.] Much branched.

multiseptate (mül'tisēp'tāt) *a.* [L. *multus*, many; *septum*, partition.] Having numerous partitions.

multiserial (mül'tisē'riäl) *a.* [L. *multus*, many; *series*, row.] Arranged in many rows; multiserial; *appl.* xylem rays.

multispiral (mül'tispi'räl) *a.* [L. *multus*, many; *spira*, coil.] With many coils or whorls.

multisporous,—polysporous.

multistaminate (mül'tistäm'ināt) *a.* [L. *multus*, many; *stamen*, thread.] Having several or many stamens.

multisulcate (mül'tisül'kāt) *a.* [L. *multus*, many; *sulcus*, furrow.] Much furrowed.

multitentaculate (mül'titēntäk'ülāt) *a.* [L. *multus*, many; *tentaculum*, feeler.] Having many tentacles.

multituberculate (mül'titübēr'külāt) *a.* [L. *multus*, many; *tuberculum*, small hump.] Having several or many small prominences.

multituberculy (mül'titübēr'küli) *n.* [L. *multus*, many; *tuberculum*, small hump.] The theory that molar teeth are derived from forms with a number of tubercles.

multivalve (mül'tivälv) *n.* [L. *multus*, many; *valvae*, folding-doors.] A shell composed of more valves or pieces than two.

multivincular (mül'tivīng'külär) *a.* [L. *multus*, many; *vinculum*, fetter.] *Appl.* hinge of bivalve shell with several ligaments.

multivoltine (mül'tivöl'tin) *a.* [L. *multus*, many; It. *volta*, turn.] Having more than one brood in a year; *appl.* silkworms.

multocular (mültök'ülär) *a.* [L. *multus*, many; *oculus*, eye.] Many-eyed.

multungulate (mültüng'gülāt) *a.* [L. *multus*, many; *ungula*, hoof.] Having the hoof in more than two parts.

mune (mün) *n.* [L. *munus*, function.] A group of organisms with a characteristic behaviour response; mores, *q.v.*

mural (müräl) *a.* [L. *muralis*, of walls.] Constituting or *pert.* a wall, as cells or membranes.

muralium (mürä'liüm) *n.* [L. *muralis*, *pert.* a wall.] A structure

formed by layers one cell thick, as of liver-cells.

muricate (mū'rikāt) *a.* [L. *muricatus*, having sharp points.] Formed with sharp points; covered with short sharp outgrowths; studded with oxalate crystals, *appl.* cystidia.

muriform (mū'rifōrm) *a.* [L. *murus*, wall; *forma*, shape.] Like a brick wall; *appl.* a parenchyma so arranged, occurring in medullary rays of dicotyledons and in corky formations; *appl.* arrangement of germinating spores; *appl.* spores; dictyospores.

muscicoline (mūsik'ōlin) *a.* [L. *musculus*, moss; *colere*, to inhabit.] Living or growing among or on mosses; muscicolous.

muscle (mūsl) *n.* [L. *musculus*, muscle.] A mass of contractile fibres with motorial function; fleshy part of body, composed of muscular tissue.

muscle banners,—folds or plaits of mesogloea on sulcar aspects of anthozoan mesenteries, supporting retractor muscles.

muscle column,—sarcostyle.

muscle-spindle,—a sensory structure in muscle, consisting of a spindle-shaped connective tissue sheath containing small modified fibres and sensory nerve endings.

muscoid (mūs'koid) *a.* [L. *musculus*, moss; Gk. *eidōs*, form.] Moss-like; mossy; muscous.

muscology (mūskōl'ōji) *n.* [L. *musculus*, moss; Gk. *logos*, discourse.] The study of Musci or mosses; *cf.* bryology.

muscular (mūs'kūlār) *a.* [L. *musculus*, muscle.] *Pert.* or consisting of muscle; *appl.* sense, excitability, fibres, tissue, process, triangle, stomach, etc.

musculature (mūs'kūlātūr) *n.* [L. *musculus*, muscle.] The system or arrangement of muscles as a whole.

musculocutaneous (mūs'kūlōkūtā'nēūs) *a.* [L. *musculus*, muscle; *cutis*, skin.] *Pert.* muscles and skin; *appl.* limb veins and nerves supplying muscles and skin.

musculophrenic (mūs'kūlōfrēn'ik) *a.* [L. *musculus*, muscle; Gk. *phren*, midriff.] Supplying diaphragm and body-wall muscles; *appl.* an artery.

musculospiral (mūs'kūlōspī'rāl) *a.* [L. *musculus*, muscle; *spira*, coil.] *Appl.* radial nerve which passes spirally down humerus.

mushroom bodies,—corpora pedunculata or pedunculate bodies, *q.v.*

mushroom gland,—the seminal vesicles of certain insects, as cockroaches.

mutafacient (mūtāfās'iēnt, -shīēnt) *a.* [L. *mutare*, to change; *facere*, to make.] Inducing or aiding the creation of a mutation, as intracellular agents, mainly.

mutagenic (mū'tājēn'ik) *a.* [L. *mutare*, to change; Gk. *gennaein*, to generate.] Capable of inducing a mutation, as radiation, chemicals, or other extra-cellular agents.

mutant (mū'tānt) *n.* [L. *mutare*, to change.] An individual with transmissible characteristics different from those of the parent form. *a.* Exhibiting mutation.

mutate (mū'tāt, mūtāt') *v.* [L. *mutare*, to change.] To undergo or exhibit mutation.

mutation (mūtā'shūn) *n.* [L. *mutare*, to change.] Gradual variation towards a definite change of structure; a successional species or subspecies; a saltation or discontinuous variation; theory of De Vries that new forms, differing sufficiently to constitute a new variety, arise spontaneously and remain true.

mutator,—*appl.* genes which increase the general mutation rate.

mutilation (mū'tilāshūn) *n.* [L. *mutilare*, to maim.] Loss of an essential part of a structure; amputation.

mutilous (mū'tilūs) *a.* [L. *mutilus*, maimed.] Without defensive structures, as clawless, harmless, toothless, blunt.

mutualism (mū'tūālīzm) *n.* [L. *mutuus*, exchanged.] A form of symbiosis in which both parties

derive advantage without sustaining injury.

myarian (mīā'riān) *a.* [Gk. *mys*, muscle.] *Appl.* classification according to musculature.

mycelioid (misē'līoid) *a.* [Gk. *mykes*, fungus; *eidos*, form.] Like mycelium.

mycelium (misē'līūm) *n.* [Gk. *mykes*, fungus.] Network of filamentous cells or hyphae forming typical vegetative structure of fungi; mycele; spawn, as of mushroom.

myceloconidium,—stylospore.

mycetocyte (misē'tōsīt) *n.* [Gk. *mykes*, fungus; *kytos*, hollow.] One of follicle-cells at posterior oocyte pole through which the egg of Aphides is infected by symbionts.

mycetogenetic (misē'tōjenēt'ik) *a.* [Gk. *mykes*, fungus; *genesis*, descent.] Produced by a fungus; mycetogenic.

mycetoid (misē'toid) *a.* [Gk. *mykes*, fungus; *eidos*, form.] Fungoid; fungus-like.

mycetology,—mycology, *q.v.*

mycetoma (misētō'mā) *n.* [Gk. *mykes*, fungus.] The mycetocytes collectively.

mycetophagous (mī'sētōf'ägūs) *a.* [Gk. *mykes*, fungus; *phagein*, to eat.] Feeding on fungi; fungivorous.

mycin,—fungine, *q.v.*

mycina (mī'sinā) *n.* [Gk. *mykes*, fungus.] A spherical stalked apothecium of certain lichens.

mycobiota (mī'kūbiō'tā) *n.* [Gk. *mykes*, fungus; *bios*, life.] The fungi of an area or region.

mycocetidium (mī'kōsēsīd'īūm) *n.* [Gk. *mykes*, fungus; *kekis*, gallnut.] Any gall caused by fungi.

mycoclera (mī'kōklērā) *n.* [Gk. *mykes*, fungus; *kleros*, portion.] The mycelial covering of ectotrophic mycorrhiza.

mycocriny (mī'kōkrī'nī) *n.* [Gk. *mykes*, fungus; *krinein*, to separate.] Chemical decomposition of plant debris by fungi.

mycoderm (mī'kōdērm) *n.* [Gk. *mykes*, fungus; *derma*, skin.] A

bacterial film during alcoholic fermentation.

mycoecotype (mī'kōē'kōtīp) *n.* [Gk. *mykes*, fungus; *oikos*, household; *typos*, pattern.] The habitat type of mycorrhizal and parasitic fungi.

mycoid (mī'koid) *a.* [Gk. *mykes*, fungus; *eidos*, form.] Like a fungus; fungoid, fungous.

mycology (mīkōl'ōjī) *n.* [Gk. *mykes*, fungus; *logos*, discourse.] That part of botany which deals with fungi; mycetology.

mycophthorous (mīkōfthō'rūs) *a.* [Gk. *mykes*, fungus; *phthoros*, destruction.] Fungus-destroying; *appl.* or *pert.* fungi parasitising other fungi.

mycoplasm (mī'kōplāzm) *n.* [Gk. *mykes*, fungus; *plasma*, form.] A parasitic substance of cereal seeds, giving rise to rust fungus.

mycopremna (mī'kōprēm'nā) *n.* [Gk. *mykes*, fungus; *premnōn*, stem.] A rhizome containing symbiotic fungi, as in some orchids.

mycorrhiza (mī'kōrī'zā) *n.* [Gk. *mykes*, fungus; *rhiza*, root.] Association of fungal mycelium with roots of a higher plant; mycorrhiza.

mycorrhizic (mī'kōrī'zīk) *a.* [Gk. *mykes*, fungus; *rhiza*, root.] Exhibiting the features of a mycorrhiza; partially symbiotic; mycorrhizic.

mycosterols (mī'kōstēr'ōlz) *n. plu.* [Gk. *mykes*, fungus; *stereos*, solid; *L. oleum*, oil.] Sterols from cryptogams, especially fungi, as ergosterol, fucosterol, zymosterol, etc.; *cf.* phytosterols.

mycothallus (mī'kōthāl'ūs) *n.* [Gk. *mykes*, fungus; *thallos*, young shoot.] The assimilative body of fungi.

mycotrophic (mī'kōtrōf'īk) *a.* [Gk. *mykes*, fungus; *trophē*, nourishment.] *Appl.* plants living symbiotically with fungi.

mycter (mīktēr'īk) *a.* [Gk. *mykter*, nose.] *Pert.* nasal cavities.

myelencephalon (mī'ēlēnkēf'ālōn, -sēf-) *n.* [Gk. *myelos*, marrow; *engkephalos*, brain.] The posterior

- part of hind-brain, comprising medulla oblongata and lower part of fourth ventricle; after-brain.
- myelin** (mí'ēlín) *n.* [Gk. *myelos*, marrow.] A highly refracting fatty material forming medullary sheath of nerve fibres.
- myelination** (mí'ēlinā'shūn) *n.* [Gk. *myelos*, marrow.] Acquisition of a medullary sheath; myelinisation.
- myeloblast** (mí'ēlōblāst) *n.* [Gk. *myelos*, marrow; *blastos*, bud.] An undifferentiated non-granular lymphoid cell of bone marrow; lymphomyelocyte.
- myelobranchium**, — restibrachium, *q.v.*
- myelocoel** (mí'ēlōsēl) *n.* [Gk. *myelos*, marrow; *koilos*, hollow.] The spinal cord canal.
- myelocyte** (mí'ēlōsīt) *n.* [Gk. *myelos*, marrow; *kytos*, hollow.] An amoeboid cell of bone marrow.
- myeloid** (mí'ēlō'ík) *a.* [Gk. *myelos*, marrow.] *Appl.* and *pert.* cells which give rise to neutrophil or polymorphonuclear leucocytes.
- myeloid** (mí'ēlōid) *a.* [Gk. *myelos*, marrow; *eidōs*, form.] Like marrow in appearance or structure; *appl.* cells, as megakaryocytes, monocytes, and parenchymal cells; resembling myelin, *appl.* granules at base of retinal pigment cells.
- myelomere** (mí'ēlōmēr) *n.* [Gk. *myelos*, marrow; *meros*, part.] A segment of the spinal cord.
- myelon** (mí'ēlōn) *n.* [Gk. *myelos*, marrow.] Spinal cord of Vertebrata.
- myeloplast** (mí'ēlōplāst) *n.* [Gk. *myelos*, marrow; *plastos*, formed.] A leucocyte of bone marrow.
- myeloplax** (mí'ēlōplāks) *n.* [Gk. *myelos*, marrow; *plax*, something flat.] A giant-cell of marrow and blood-forming organs; megakaryocyte and osteoclast.
- myelopoiesis** (mí'ēlōpoiē'sīs) *n.* [Gk. *myelos*, marrow; *poiesis*, making.] The formation and development of cells of bone marrow, as of granulocytes.
- myelospongium** (mí'ēlōspōn'jiūm) *n.* [Gk. *myelos*, marrow; *sponggia*, sponge.] Interconnected spongio-blasts which give rise to neuroglia.
- myenteric** (mīēntēr'ík) *a.* [Gk. *mys*, muscle; *enteron*, gut.] *Appl.* nerve plexus controlling movement of food towards anus, Auerbach's plexus; *appl.* reflex.
- myenteron** (mīēn'tērōn) *n.* [Gk. *mys*, muscle; *enteron*, gut.] The muscular coat of intestine.
- myiasis** (mí'yāsīs) *n.* [Gk. *myia*, fly.] The invasion of living tissues by larvae of Diptera.
- mylohyoid** (mí'lōhī'oid) *a.* [Gk. *myle*, mill; *hyoeides*, T-shaped.] In the region of hyoid bone and posterior part of mandible; *appl.* artery, groove, muscle, nerve.
- myoalbumin** (mí'ōalbū'mín) *n.* [Gk. *mys*, muscle; *L. albumen*, white of egg.] An albumin product of muscle.
- myoblast** (mí'ōblāst) *n.* [Gk. *mys*, muscle; *blastos*, bud.] A cell which develops into muscle fibre.
- myocardium** (mí'ōkār'diūm) *n.* [Gk. *mys*, muscle; *kardia*, heart.] The muscular walls of the heart.
- myochrome** (mí'ōkrōm) *n.* [Gk. *mys*, muscle; *chroma*, colour.] Any muscle-pigment.
- myocoel** (mí'ōsēl) *n.* [Gk. *mys*, muscle; *koilos*, hollow.] Part of the coelom enclosed in a myotome.
- myocomma** (mí'ōkōm'ā) *n.* [Gk. *mys*, muscle; *komma*, clause.] A myoseptum or ligamentous connection between successive myomeres.
- myocyte** (mí'ōsīt) *n.* [Gk. *mys*, muscle; *kytos*, hollow.] Contractile inner layer of ectoplasm of Gregarinina; a contractile cell; muscle cell.
- myodome** (mí'ōdōm) *n.* [Gk. *mys*, muscle; *domos*, chamber.] A chamber containing the eye-muscles in some teleosts.
- myodynamic** (mí'ōdīnām'ík) *a.* [Gk. *mys*, muscle; *dynamis*, power.] *Pert.* muscular force or contraction.
- myoepicardial** (mí'ōēpikār'diāl) *a.* [Gk. *mys*, muscle; *epi*, upon; *kardia*, heart.] *Appl.* a mantle consisting of the mesocardium walls,

destined to form the muscular and epicardial walls of the heart.

myoepithelial (mī'ōēpīthē'liāl) *a.* [Gk. *mys*, muscle; *epi*, upon; *thele*, nipple.] *Pert.* muscle and epithelium; *appl.* epithelium cells with contractile outgrowths, as in coelenterates; *appl.* contractile cells of epithelial origin in salivary and sweat glands.

myofibrillae (mī'ōfibril'ē) *n. plu.* [Gk. *mys*, muscle; *L. fibrilla*, small fibre.] Contractile fibrils of muscular tissue; myofibrils.

myofilaments (mī'ōfil'aments) *n. plu.* [Gk. *mys*, muscle; *L. filum*, thread.] Thin thread-like components of a myofibrilla.

myogenic (mī'ōjēn'ik) *a.* [Gk. *mys*, muscle; *gennaein*, to produce.] Having origin in muscular cells, as heart-beat.

myoglobin (mī'ōglō'bīn) *n.* [Gk. *mys*, muscle; *L. globus*, globe.] Myohaematin.

myoglobulin (mī'ōglōb'ūlin) *n.* [Gk. *mys*, muscle; *L. globulus*, small globe.] A globulin of muscle.

myohaematin (mī'ōhēm'ātin) *n.* [Gk. *mys*, muscle; *haima*, blood.] A pigment of muscular tissue, a cytochrome, *q.v.*

myoid (mī'oid) *a.* [Gk. *mys*, muscle; *eidos*, form.] Resembling or composed of muscular fibres; *appl.* striated cells or sarcolemma of thymus. *n.* Contractile proximal part or filament of rods and cones of retina.

myolemma (mī'ōlē'mā) *n.* [Gk. *mys*, muscle; *lemma*, skin.] The sheath of muscle fibre; sarcolemma.

myology (mī'ōl'ōji) *n.* [Gk. *mys*, muscle; *logos*, discourse.] The branch of anatomy dealing with muscles.

myomere (mī'ōmēr) *n.* [Gk. *mys*, muscle; *meros*, part.] A muscle-segment divided off by connective tissue insertions or myocommata.

myometrial (mī'ōmē'triāl) *a.* [Gk. *mys*, muscle; *metra*, uterus.] *Pert.* myometrium; *appl.* glandular tissue of uterus, supposed to produce a

hormone affecting growth of mammary glands.

myometrium (mī'ōmēt'riūm) *n.* [Gk. *mys*, muscle; *metra*, uterus.] The muscular uterine wall.

myone (mīōn') *n.* [Gk. *myon*, muscular part.] Unit of muscle: individual muscle fibre.

myonema (mīōnē'mā) *n.* [Gk. *mys*, muscle; *nema*, thread.] A minute contractile fibril of Protista; myoneme.

myoneural (mī'ōnūr'rāl) *a.* [Gk. *mys*, muscle; *neuron*, nerve.] Neuromyal, *q.v.*

myoneure (mī'ōnūr) *n.* [Gk. *mys*, muscle; *neuron*, nerve.] A motorial nerve-cell.

myonicity (mī'ōnis'itī) *n.* [Gk. *mys*, muscle.] The contracting power of muscular tissue.

myophan (mī'ōfān) *a.* [Gk. *mys*, muscle; *phainein*, to appear.] Muscle-like; *appl.* striations in protozoa.

myophore (mī'ōfōr) *n.* [Gk. *mys*, muscle; *pherein*, to bear.] A structure adapted for muscle attachment.

myophrisk (mī'ōfrisk) *n.* [Gk. *mys*, muscle; *phrix*, ripple.] A myoneme or contractile element of protozoa.

myoplasm (mī'ōplāzm) *n.* [Gk. *mys*, muscle; *plasma*, mould.] Contractile portion of muscle fibre, *opp.* sarcoplasm.

myopolar (mī'ōpō'lār) *a.* [Gk. *mys*, muscle; *polos*, axle-end.] *Pert.* muscular polarity.

myoproteid (mī'ōprō'tēid) *n.* [Gk. *mys*, muscle; *protos*, first.] A globulin-like substance of fish muscle.

myoseptum (mī'ōsēp'tūm) *n.* [Gk. *mys*, muscle; *L. septum*, partition.] A myocomma, *q.v.*

myosin (mī'ōsīn) *n.* [Gk. *mys*, muscle.] A globulin of dead muscular tissue; muscle-clot.

myosis (mī'ō'sis) *n.* [Gk. *myein*, to close.] Contraction of pupil of the eye.

myotasis (mī'ōt'āsīs) *n.* [Gk. *mys*, muscle; *tasis*, tension.] Muscular tension or tonicity.

myotatic (mīōtāt'ik) *a.* [Gk. *mys*, muscle; *tasis*, tension.] Causing or *pert.* myotasis; *appl.* stretch reflex.

myotic (mīōt'ik) *a.* [Gk. *myein*, to close.] Causing or *pert.* myosis or pupillary contraction.

myotome (mī'ōtōm) *n.* [Gk. *mys*, muscle; *tome*, cutting.] One of a series of hollow cubes formed in early vertebrate embryo; a muscular metamere of primitive vertebrates and segmented invertebrates.

myotonia (mīōtō'nīā) *n.* [Gk. *mvs*, muscle; *tonos*, tension.] Muscular tension or tonic.

myriosporous (mīr'īōspō'rūs) *a.* [Gk. *myrios*, numberless; *sporos*, seed.] Having very numerous spores; extremely polysporous.

myrmecochore (mīr'mēkōkō'rē) *n.* [Gk. *myrmex*, ant; *chorē*, farm.] An oily seed modified to attract, and be spread by, ants.

myrmecology (mīr'mēkōl'ōji) *n.* [Gk. *myrmex*, ant; *logos*, discourse.] The study of ants.

myrmecophagous (mīr'mēkōf'āgūs) *a.* [Gk. *myrmex*, ant; *phagein*, to eat.] Ant-eating.

myrmecophil (mīr'mēkōf'il) *n.* [Gk. *myrmex*, ant; *philos*, loving.] A guest insect in a nest of ants.

myrmecophilous (mīr'mēkōf'ilūs) *a.* [Gk. *myrmex*, ant; *philos*, loving.] Pollinated by agency of ants; *appl.* fungi serving as food for ants; living with, or preying on, or mimicking ants, *appl.* spiders.

myrmecophobic (mīr'mēkōfōb'ik) *a.* [Gk. *myrmex*, ant; *phobeisthai*, to flee.] Repelling ants; *appl.* certain plants equipped with glands, hairs, etc. that check ants.

myrmecophyte (mīr'mēkōf'it) *n.* [Gk. *myrmex*, ant; *phyton*, plant.] A myrmecophilous plant, or one that benefits from ant inhabitants and has special adaptations for housing them.

myrosin (mīr'ōsīn) *n.* [Gk. *myron*, unguent.] Sinigrinase, an enzyme of Cruciferae, acting upon glucosides.

myrtilform (mīr'tifōrm) *a.* [L. *myrtus*,

myrtle; *forma*, shape.] *Appl.* incisive fossa.

mystacial (mīstā'siāl) *a.* [Gk. *mystax*, moustache.] *Appl.* a pad of thickened skin on side of snout, and to tactile hairs or vibrissae.

mystax (mīs'tāks) *n.* [Gk. *mystax*, moustache.] A group of hairs above mouth of certain insects; mystacial hairs.

myxamoeba (mīk'sāmē'bā) *n.* [Gk. *myxa*, slime; *amoibe*, change.] Mycetozoan spore in amoebula stage.

myxocyte (mīk'sōsīt) *n.* [Gk. *myxa*, slime; *kytos*, hollow.] Cell of mucous tissue.

myxoflagellate (mīk'sōflāj'ēlāt) *n.* [Gk. *myxa*, slime; L. *flagellum*, whip.] A flagellula or zoospore following myxamoeba stage in development of Myxomycetes or Mycetozoa.

myxopodium (mīk'sōpō'diūm) *n.* [Gk. *myxa*, slime; *pous*, foot.] A slimy pseudopodium.

myxopterygium, — mixipterygium. **myxosporangium** (mīk'sōspōrān'jūm) *n.* [Gk. *myxa*, slime; *sporos*, seed; *angeion*, vessel.] A sporangium producing spores embedded in a slimy substance; fruit-body of Myxomycetes.

myxospore (mīk'sōspōr) *n.* [Gk. *myxa*, slime; *sporos*, seed.] A spore separated by a slimy disintegration of the hypha; slime spore; spore of Myxomycetes; a plasmaspore, *q.v.*

myzesis (mīzē'sīs) *n.* [Gk. *myzein*, to suck.] Suction; sucking.

N

nacré (nāk'rā') *a.* [F. *nacré*, having a pearly lustre.] *Appl.* the thick primary wall of sieve elements.

nacreous (nā'krēūs) *a.* [Ar. *nakir*, hollowed.] Yielding or resembling mother-of-pearl or nacre.

nacrine (nā'krīn) *n.* [Ar. *nakir*, hollowed.] Mother-of-pearl colour.

naiad (nī'ād) *n.* [Gk. *naias*, water-nymph.] The nymph stage of hemimetabolic insects.

nail (nāl) *n.* [A.S. *naegel*, nail.] Terminal horny plate of finger or toe; or of beak; unguis.

nail bone,—terminal bone of finger or toe; ungual phalanx.

naked (nā'kēd) *a.* [A.S. *nacod*.] Without a covering; *appl.* spores, seeds, etc.; *appl.* non-nuclear genes, as phage or virus.

nanander (nānān'dēr) *n.* [Gk. *nanos*, dwarf; *aner*, male.] A dwarf male; *appl.* plants; nan-nander.

nanism (nā'nīzm) *n.* [Gk. *nanos*, dwarf.] Dwarfishness.

nanoid (nā'noid) *a.* [Gk. *nanos*, dwarf; *eidos*, form.] Dwarfish.

nanophanerophyte (nān'ōfān'ērōfit) *n.* [Gk. *nanos*, dwarf; *phaneros*, manifest; *phyton*, plant.] Shrub under 2 metres in height.

nanoplankton (nān'ōplāng'ktōn) *n.* [Gk. *nanos*, dwarf; *plangkton*, wandering.] Microscopic floating plant and animal organisms; nanoplankton; *cf.* microplankton.

nanous (nā'nūs) *a.* [L. *nanus*, dwarf.] Dwarfed; dwarfish.

napiform (nā'pīfōrm) *a.* [L. *napus*, turnip; *forma*, shape.] Turnip-shaped; *appl.* roots.

narcosis (nārkō'sis) *n.* [Gk. *narke*, numbness.] State of unconsciousness or stupor produced by a drug.

narcotic (nārkōt'ik) *n.* [Gk. *narke*, numbness.] A drug which produces unconsciousness. *a.* *Pert.* or producing narcosis.

nares (nā'rēz) *n. plu.* [L. *nares*, nostrils.] Nostrils.

nares, anterior,—openings of olfactory organ to exterior; nostrils.

nares, posterior,—openings of olfactory organ into pharynx or throat; choanae.

narial (nā'riāl) *a.* [L. *nares*, nostrils.] *Pert.* the nostrils; *appl.* septum, the partition between nostrils.

naricorn (nā'rīkōrn) *n.* [L. *nares*, nostrils; *cornu*, horn.] Terminal

horny part of nostril of Turbinares; nasal scale.

nariform (nā'rīfōrm) *a.* [L. *nares*, nostrils; *forma*, shape.] Shaped like nostrils.

narine,—narial.

naris,—*sing.* of nares.

nasal (nā'zāl) *a.* [L. *nasus*, nose.] *Pert.* the nose. *n.* Nasal scale, plate, or bone.

nasalis (nāsā'lis) *n.* [L. *nasus*, nose.] Muscle drawing alae of the nose towards septum; compressor naris.

nasion (nā'zīōn) *n.* [L. *nasus*, nose.] Middle point of nasofrontal suture.

Nasmyth's membrane [*A. Nasmyth*, Scottish dentist]. Cuticula dentis, a transparent membrane over enamel of crown of a mammalian tooth.

nasoantral (nā'zōān'trāl) *a.* [L. *nasus*, nose; *antrum*, cavity.] *Pert.* nose and maxillary cavity.

nasobuccal (nā'zōbūk'āl) *a.* [L. *nasus*, nose; *bucca*, cheek.] *Pert.* nose and cheek; *pert.* nose and mouth cavity.

nasociliary (nā'zōsīl'īārī) *a.* [L. *nasus*, nose; *cilia*, eyelashes.] *Appl.* branch of ophthalmic nerve, with internal and external nasal branches, and giving off the long ciliary and other nerves.

nasofrontal (nā'zōfrūn'tāl) *a.* [L. *nasus*, nose; *frons*, forehead.] *Appl.* part of superior ophthalmic vein which communicates with the angular vein.

nasolabial (nā'zōlā'biāl) *a.* [L. *nasus*, nose; *labium*, lip.] *Pert.* nose and lip; *appl.* muscle; *appl.* groove and glands in Plethodontidae.

nasolacrimal (nā'zōlāk'rīmāl) *a.* [L. *nasus*, nose; *lacrima*, tear.] *Appl.* duct from lacrimal sac to inferior meatus of nose.

nasomaxillary (nā'zōmāksīl'ārī) *a.* [L. *nasus*, nose; *maxilla*, jaw.] *Pert.* nose and upper jaw.

naso-optic (nā'zōōp'tik) *a.* [L. *nasus*, nose; Gk. *optikos*, relating to sight.] *Appl.* an embryonic groove between nasal and maxillary processes.

nasopalatine (nā'zöpāl'ätfn) *a.* [L. *nasus*, nose; *palatus*, palate.] *Pert.* nose and palate. *Appl.* groove of vomer, recess in nasal septum, nerve, canal communicating with vomeronasal organ; nasopalatal.

nasopharyngeal (nā'zöfärin'jēäl) *a.* [L. *nasus*, nose; Gk. *pharyngx*, gullet.] *Pert.* nose and pharynx, or nasopharynx.

nasopharynx (nā'zöfär'ingks) *n.* [L. *nasus*, nose; Gk. *pharyngx*, gullet.] That part of pharynx continuous with posterior nares; rhinopharynx.

nasoturbinal (nā'zötür'bīnāl) *a.* [L. *nasus*, nose; *turbo*, whorl.] *Appl.* outgrowths from lateral wall of nasal cavity increasing area of sensory surface.

nastic (näs'tik) *a.* [Gk. *nastos*, pressed close.] *Appl.* plant movements caused by diffuse stimuli, as chemo-, photo-, nycti-, traumatico-, scismonasty.

nasus (nā'zūs) *n.* [L. *nasus*, nose.] Nose; clypeus of insect head.

nasute (näsūt') *a.* [L. *nasutus*, large-nosed.] *Appl.* a soldier termite with rostrum; nasutus.

natal (nāt'äl) *a.* [L. *nates*, buttocks.] *Pert.* the buttocks.

natality (nātäl'itī) *n.* [L. *natalis*, *pert.* birth.] Birth-rate.

natant (nā'tānt) *a.* [L. *natare*, to swim.] Floating on water surface.

natatorial (nāt'ätö'riäl), **natatory** (nāt'ätöri) *a.* [L. *natare*, to swim.] Formed or adapted for swimming.

native (nā'tiv) *a.* [L. *natus*, born.] *Appl.* animals and plants which originated in district or area in which they live.

natural selection,—processes occurring in Nature which result in survival of fittest and elimination of individuals less well adapted to their environment.

nature (nā'tūr) *n.* [L. *natura*, nature.] Sum-total of inheritance, *opp.* nurture or environment.

nauplius (nō'plūs) *n.* [L. *nauplius*, shell-fish.] The earliest larval stage of entomostracan crustaceans and certain shrimps.

nautiliform (nôt'iliförm) *a.* [L. *nautilus*, nautilus; *forma*, shape.] Shaped like a nautilus shell; nautiloid.

navel (nā'vël) *n.* [A.S. *nafela*, navel.] Place of attachment of umbilical cord to body of embryo; umbilicus.

navicular (nāvīk'ülär) *a.* [L. *navis*, *dim.*, ship.] Boat-shaped; scaphoid.

naviculare (nāvīk'ülä'rē) *a.* [L. *navis*, *dim.*, ship.] The scaphoid radiale of mammalian carpus; tarsal bone between talus and cuneiform bones.

N-discs,—discs or bands on either side of Z-disc.

neala,—vannus, *q.v.*, of insect wing.

neallotype (nēäl'ötīp) *n.* [Gk. *neos*, new; *allos*, other; *typos*, pattern.] A type specimen of the opposite sex to that of the specimen previously chosen for designation of a new species.

nealogy (nēäl'öjī) *n.* [Gk. *neales*, youthful; *logos*, discourse.] The study of young animals.

neanic (nēän'ik) *a.* [Gk. *neanikos*, youthful.] Adolescent; *appl.* larval phase preceding that of adult form.

Nearctic (nēärk'tik) *a.* [Gk. *neos*, new; *Arktos*, Great Bear.] *Appl.* or *pert.* a zoogeographical region, or sub-region of the holarctic region, comprising Greenland and North America, and including northern Mexico.

nebenkern (nā'bēnkērñ) *n.* [Ger. *neben*, near; *Kern*, nucleus.] Paranucleus, *q.v.*

nebenkörper (nā'bēnkēr'pēr) *n.* [Ger. *neben*, near; *Körper*, body.] A body surrounded by oil-drops at hinder pole, of Pyrodinium.

necrobiosis (nēk'röbīō'sīs) *n.* [Gk. *nekros*, dead; *biosis*, manner of life.] The activity of cells after death of an organism; continuance of certain vital functions after disorganisation of a cell.

necrocytosis (nēk'rösītō'sīs) *n.* [Gk. *nekros*, dead; *kytos*, hollow.] Death of cells.

necrogenous (nēkröj'ēnūs) *a.* [Gk. *nekros*, dead; *genos*, offspring.] Living or developing in dead bodies.

necrohormone (nĕk'rohôrmôn) *n.* [Gk. *nekros*, dead; *hormaein*, to excite.] Substance in tissue extracts or dead cells which may either kill living cells or induce mitosis.

necrophagous (nĕkrôf'ágûs) *a.* [Gk. *nekros*, dead; *phagein*, to eat.] Feeding on dead bodies.

necrophilous,—necrophagous.

necrophoric (nĕk'rôfôr'ik) *a.* [Gk. *nekros*, dead; *pherein*, to carry.] Containing dead cells, *appl.* water-storing layers in lichens; carrying away dead bodies, *appl.* certain beetles; necrophoral, necrophorous.

necrosis (nĕkrô'sis) *n.* [Gk. *nekrosis*, deadness.] The death of cells or of tissues. *a.* Necrotic.

nectar (nĕk'târ) *n.* [Gk. *nektar*, nectar.] Sweet substance secreted by special glands, nectaries, in flowers and in certain leaves; substance containing spores and attracting insects, produced by certain fungi, as on pycnidia.

nectar guides,—series of markings on petals of flowers, aiding insects in finding nectar, and at same time facilitating cross-fertilisation.

nectariferous (nĕk'târîf'erûs) *a.* [L. *nectar*, nectar; *ferre*, to carry.] Producing nectar, or having nectar-secreting structures.

nectarivorous (nĕk'târîv'ôrûs) *a.* [L. *nectar*, nectar; *vorare*, to devour.] Nectar-sipping; *appl.* certain insects.

nectary (nĕk'târî) *n.* [Gk. *nektar*, nectar.] A group of modified sub-epidermal cells of no definite position in a flower, less commonly in leaves, secreting nectar; a nectar gland; honey tube of aphids.

nectocalyx (nĕk'tôkâ'liks) *n.* [Gk. *nekτος*, swimming; *kalyx*, cup.] A modified medusiform person adapted for swimming purposes found as part of a siphonophore colony.

nectocyst (nĕk'tôsist) *n.* [Gk. *nekτος*, swimming; *kystis*, bladder.] The cavity of a nectocalyx; nectosac.

nectomonad (nĕk'tômôn'ad) *n.* [Gk. *nekτος*, swimming; *monas*, unit.] A

free form of certain parasitic flagellates; *cf.* haptomonad.

necton,—nekton.

nectophore (nĕk'tôfôr) *n.* [Gk. *nekτος*, swimming; *pherein*, to carry.] A nectocalyx; that portion of common coenosarc on which nectocalyces are borne.

nectopod (nĕk'tôpôd) *n.* [Gk. *nekτος*, swimming; *pous*, foot.] An appendage modified for swimming.

nectosome (nĕk'tôsôm) *n.* [Gk. *nekτος*, swimming; *soma*, body.] Upper or swimming part of a siphonophore.

nectozoid (nĕk'tôzô'oid) *n.* [Gk. *nekτος*, swimming; *zoon*, animal; *eidos*, form.] A nectocalyx.

Needham's sac,—spermatophoresac, formed by dilatation of male genital duct, in certain cephalopods.

neencephalon,—neencephalon.

negative tropism,—tendency to move away from the source of a stimulus.

nektion (nĕk'tôn) *n.* [Gk. *nekτος*, swimming.] The organisms swimming actively in water.

nema (nĕ'mâ) *n.* [Gk. *nema*, thread.] A thread-like tubular projection at apex of graptolite sicula; a filament; a nematode.

nemathecium (nĕm'âthĕ'siŭm) *n.* [Gk. *nema*, thread; *theke*, box.] A protuberance on thallus of thallophytes.

nemathybomes (nĕm'âthîb'ômz) *n. plu.* [Gk. *nema*, thread; *hybos*, humped.] Mesogloecal parts containing developing nematocysts, as in Edwardsia.

nematoblast (nĕm'âtôblâst) *n.* [Gk. *nema*, thread; *blastos*, bud.] The cell from which a nematocyst develops.

nematocalyx (nĕm'âtôkâ'liks) *n.* [Gk. *nema*, thread; *kalyx*, cup.] The 'guard-polyp' of Plumularia, carrying nematocysts.

nematocyst (nĕm'âtôsist) *n.* [Gk. *nema*, thread; *kystis*, bladder.] A stinging cell; cnida, cnidoblast.

nematogene (něm'ätöjēn) *n.* [Gk. *nema*, thread; *genos*, offspring.] *Appl.* phase of Dicyemidae when their vermiform embryos escape from parent by perforating body wall. *Cf.* rhombogene.

nematogene (něm'ätögōnē) *n.* [Gk. *nema*, thread; *gone*, seed.] A thin-walled propagative cell in gemma of certain mosses.

nematoid (něm'atoid) *a.* [Gk. *nema*, thread; *eidōs*, form.] Thread-like; filamentous.

nematology (němätöl'ōjī) *n.* [Gk. *nema*, thread; *logos*, discourse.] The study of Nematoda; nematodology.

nematophore (něm'ätöfōr) *n.* [Gk. *nema*, thread; *pherein*, to carry.] A nematocalyx.

nematophorous (něm'ätöf'ōrūs) *a.* [Gk. *nema*, thread; *pherein*, to carry.] *Pert.* a nematophore.

nematosphere (něm'ätösfer) *n.* [Gk. *nema*, thread; *sphaira*, globe.] The capitate end of a tentacle in certain sea-anemones.

nematozoid (něm'ätözō'oid) *n.* [Gk. *nema*, thread; *zōon*, animal; *eidōs*, form.] A defensive zooid in Hydrozoa.

nemeous,—filamentous, nematoid.

nemic (ně'mik) *a.* [Gk. *nema*, thread.] *Pert.* a nema; *pert.* Nematoda.

nemorose (něm'ōrōs) *a.* [L. *nemorosus*, sylvan.] Inhabiting open woodland places; nemoricole.

neoblast (ně'oblāst) *n.* [Gk. *neos*, new; *blastos*, bud.] One of the undifferentiated cells forming primordium of regeneration tissue in response to a wound stimulus.

neocarp (ně'ōkārpi) *n.* [Gk. *neos*, young; *karpōs*, fruit.] Production of fruit by an otherwise immature plant.

neocerebellum (ně'ōsēr'ēbēl'ūm) *n.* [Gk. *neos*, new; L. *dim.* of *cerebrum*, brain.] Cerebellar region which receives pontine fibres predominantly. *Opp.* palaeocerebellum.

neocortex,—neopallium.

Neo-Darwinism,—a revival of Darwin's doctrine of natural selection

as chief factor in evolution, working on germinal variations, not on acquired characters.

neencephalon (ně'ōēnkēf'ālōn, -sef-) *n.* [Gk. *neos*, young; *engkephalos*, brain.] The telencephalon or latest evolved anterior portion of brain.

Neogaea (ně'ōjē'ā, -gā'yā) *n.* [Gk. *neos*, new; *gaia*, earth.] Zoogeographical area comprising the neotropical region.

neogamous (něōg'āmūs) *a.* [Gk. *neos*, young; *gamos*, marriage.] *Appl.* forms of protozoa exhibiting precocious association of gametocytes.

Neogene (ně'ōjēn) *a.* [Gk. *neos*, young; *genos*, age.] *Pert.* or *appl.* the later Tertiary period, Miocene and Pliocene epochs.

neogenesis (něō'jēn'ēsīs) *n.* [Gk. *neos*, new; *genesis*, birth.] New tissue formation; regeneration.

Neo-Lamarckism,—a revival of Lamarck's doctrine of evolution, that inherited acquired characters formed inception of specific differences.

Neolaurentian (ně'ōlōrēn'shiān) *a.* [Gk. *neos*, young; *St Lawrence River*.] *Pert.* or *appl.* early Proterozoic era.

Neolithic (ně'ōlith'ik) *a.* [Gk. *neos*, young; *lithos*, stone.] *Appl.* or *pert.* the newer, or polished, stone age.

neomorph (ně'ōmōrf) *n.* [Gk. *neos*, new; *morphe*, form.] A structural variation from type; an allele which induces new reactions in developmental processes.

neomorphosis (ně'ōmōr'fōsīs) *n.* [Gk. *neos*, new; *morphosis*, change.] Regeneration in case where new part is unlike anything in body.

neonatal (ně'ōnā'tāl) *a.* [Gk. *neos*, new; L. *natus*, born.] New-born; recently hatched or born.

neonychium (ně'ōnik'ūm) *n.* [Gk. *neos*, young; *onyx*, nail.] A soft pad enclosing each claw of embryo of unguiculate vertebrates and of some other mammals, to prevent tearing of foetal membranes; horny claw-pad in birds before hatching.

neopallium (ně'öpál'iŭm) *n.* [Gk. *neos*, young; L. *pallium*, cloak.] In mammalian brain, the cerebral cortex, excluding hippocampus and pyriform lobe.

neoplasm (ně'öplāzm) *n.* [Gk. *neos*, new; *plasma*, formation.] New or added tissue, generally pathological.

neoptile (ně'ötíl, ně'öptíl) *n.* [Gk. *neos*, young; *ptilon*, feather.] A down feather; down; neosoptile.

neosoptile (něös'ötíl, -ptíl) *n.* [Gk. *neossos*, nestling; *ptilon*, feather.] Feather of nestlings; down feather; neoptile.

neoteinia (ně'ötí'nĩā) *n.* [Gk. *neos*, young; *teinein*, to stretch.] The state of having development arrested to prolong immaturity; neoteny.

neoteinic (ně'ötí'ník) *a.* [Gk. *neos*, young; *teinein*, to stretch.] *Appl.* substitution royalties of termites which remain undeveloped in certain respects.

neotenin (něötē'nín) *n.* [Gk. *neos*, young; *teinein*, to extend.] Hormone secreted by corpora allata which inhibits development of adult characteristics in young insects; juvenile hormone.

neoteny (něöt'ēní) *n.* [Gk. *neos*, young; *teinein*, to stretch.] Retention of larval characters beyond normal period, or occurrence of adult characteristics in larva.

neothalamus (ně'öthāl'āmŭs) *n.* [Gk. *neos*, new; *thalamos*, chamber.] The part of the thalamus with nuclei connected with association areas of the cerebral cortex.

neotropical (ně'ötröp'íkāl) *a.* [Gk. *neos*, new; *tropikos*, tropic.] *Appl.* or *pert.* a zoogeographical region consisting of Southern Mexico, Central and South America, and the West Indies.

neotype (ně'ötíp) *n.* [Gk. *neos*, new; *typos*, pattern.] A new type; a new holotype; a new type specimen from the original type locality.

neovirus (ně'öví'rŭs) *n.* [Gk. *neos*, new; L. *virus*, poison.] A virus directly formed by a mutant viroid. *Opp.* palaeovirus.

Neozoic (ně'özō'ík) *a.* [Gk. *neos*, young; *zoe*, life.] *Pert.* period from end of Mesozoic to present day.

nephric (něf'rik) *a.* [Gk. *nephros*, kidney.] *Pert.* kidney; renal.

nephridial (něfríd'iāl) *a.* [Gk. *nephros*, kidney; *idion*, *dim.*] Nephric, usually *appl.* the small excretory tubules in kidney; *pert.* excretory organ or nephridium of invertebrates.

nephridioblast (něfríd'iöbläst) *n.* [Gk. *nephros*, kidney; *idion*, *dim.*; *blastos*, bud.] An ectodermal cell which gives rise to a nephridium.

nephridiopore (něfríd'iöpör) *n.* [Gk. *nephros*, kidney; *idion*, *dim.*; *poros*, passage.] The external opening of a nephridium.

nephridiostome (něfríd'iöstöm) *n.* [Gk. *nephros*, kidney; *idion*, *dim.*; *stoma*, mouth.] Ciliated coelomic opening of a nephridium.

nephridium (něfríd'iŭm) *n.* [Gk. *nephros*, kidney; *idion*, *dim.*] An excretory organ, usually that of invertebrates; embryonic kidney tubule of vertebrates.

nephroblast (něf'robläst) *n.* [Gk. *nephros*, kidney; *blastos*, bud.] One of the embryonic cells which give rise ultimately to nephridia.

nephrocoel (něf'rosēl) *n.* [Gk. *nephros*, kidney; *koiolos*, hollow.] The cavity of a nephrotome; nephrocoele.

nephrocytes (něf'rösits) *n. plu.* [Gk. *nephros*, kidney; *kytos*, hollow.] Cells in sponges and insects which secrete waste and then migrate to surface of body to discharge; brown cells for storage and removal of waste products, as in ascidians.

nephrodynamic (něf'röjēn'ík) *a.* [Gk. *nephros*, kidney; *odis*, labour.] Having one duct serving for both excretory and genital purposes.

nephrogenic (něf'röjēn'ík) *a.* [Gk. *nephros*, kidney; *gennaein*, to produce.] *Pert.* development of kidney; *appl.* cord or column of fused mesodermal cells giving rise to tubules of mesonephros.

nephrogonoduct (něf'rögön'ödükt) *n.* [Gk. *nephros*, kidney; *gonos*, seed; L. *ducere*, to lead.] Excretory and genital duct in one.

nephroid (něf'roid) *a.* [Gk. *nephros*, kidney; *eidos*, form.] Kidney-shaped; reniform.

nephrolytic (něf'röllit'ik) *a.* [Gk. *nephros*, kidney; *lyein*, to dissolve.] *Pert.* or designating enzymatic action destructive to kidneys.

nephromere (něf'römēr) *n.* [Gk. *nephros*, kidney; *meros*, part.] Nephrotome, *q.v.*

nephromixium (něf'römik'siüm) *n.* [Gk. *nephros*, kidney; *mixis*, mixing.] A compound excretory organ comprising flame cells and coelomic funnel.

nephron (něf'rön) *n.* [Gk. *nephros*, kidney.] Structural and functional unit of a kidney, including the renal corpuscle, convoluted tubules, and Henle's loop.

nephropore (něf'röpör) *n.* [Gk. *nephros*, kidney; *poros*, passage.] A nephridiopore.

nephros (něf'rös) *n.* [Gk. *nephros*, kidney.] A kidney; usually the functional portion of a kidney.

nephrostoma (něf'röstömā) *n.* [Gk. *nephros*, kidney; *stoma*, mouth.] The opening of a nephridial tubule into body cavity; nephrostome.

nephrotome (něf'rötöm) *n.* [Gk. *nephros*, kidney; *temnein*, to cut.] That part of a somite developing into an embryonic excretory organ; nephromere.

nepionic (něpiön'ik) *a.* [Gk. *nepios*, infant.] Postembryonic; infantile; during infancy; *appl.* phase in development or evolution.

nepionotype (ně'piönötíp) *n.* [Gk. *nepios*, infant; *typos*, pattern.] Type or type specimen of a larva of a species.

neritic (něrit'ik) *a.* [Gk. *nerites*, a mussel.] *Pert.* or living only in coastal waters, *opp.* oceanic.

neritopelagic (ně'ritöpélāj'ik) *a.* [Gk. *Nereis*, Nereid; *pelagos*, sea.] *Pert.*, or inhabiting, the sea above continental shelf.

nervate (něr'vāt) *a.* [L. *nervus*, sinew.] Having nerves or veins.

nervation (něrvā'shün), **nervature** (něr'vātūr) *n.* [L. *nervus*, sinew.] The disposition of nerves or veins in a leaf or membranous wing.

nerve (něrv) *n.* [L. *nervus*, sinew.] One of numerous fibrous stimuli-transmitting cords connecting brain with all other parts of body; vein of insect wing; a vein of leaf.

nerve canal,—a canal for passage of nerve to pulp of a tooth.

nerve cell,—a cell characteristic of brain and nerve tissue; neurocyte, neurone.

nerve centre,—collection of nerve cells associated with a particular function.

nerve eminence,—a superficial group of cells in some fishes, acting as a sense organ and connected with lateral line system; neuromast.

nerve ending,—the terminal distal portion of a nerve, modified in various ways.

nerve fibres,—thread-like structures of which nerves are composed.

nerve net,—a reticulum of nerve cells and their processes connecting sensory cells and muscular elements, in coelenterates.

nerve pentagon,—five-sided nerve ring around mouth of echinoderms.

nervicolous (něrvik'ölüs) *a.* [L. *nervus*, sinew; *colere*, to dwell.] Inhabiting or growing on leaf-veins; nervicole.

nerviduct (něr'vidükt) *n.* [L. *nervus*, sinew; *ducere*, to lead.] Passage for nerves in cartilage or bone.

nervimotion (něr'vímō'shün) *n.* [L. *nervus*, sinew; *movere*, to move.] Motion due to direct stimulus from nerves.

nervi nervorum,—branching nerve fibres with end-bulbs in epineurium.

nervous (něr'vüs) *a.* [L. *nervus*, sinew.] *Pert.* nerves; *appl.* tissue composed of nerve fibres.

nervous system,—brain, spinal cord, nerves and all their branches taken collectively.

nervule (nēr'vūl) *n.* [L. *dim.* of *nervus*, sinew.] Branch or terminal portion of nerve of insect wing.

nerivation (nēr'vūrā'shūn) *n.* [L. *nervus*, sinew.] Disposition of nervures; neuriation.

nerve (nēr'vūr) *n.* [L. *nervus*, sinew.] One of rib-like structures which support membranous wings of insects, branches of tracheal system; a leaf-vein.

nervus lateralis (nēr'vūs lāt'ērā'lis) *n.* [L. *nervus*, sinew; *lateralis*, *pert.* side.] A branch of vagus nerve in fishes, connecting sensory lateral line with brain.

nervus terminalis (nēr'vūs tērminā'lis) *n.* [L. *nervus*, sinew; *terminalis*, bounding.] A cranial nerve associated with vomeronasal organ.

nessoptile,—neossoptile, *q.v.*

net knots,—karyosomes.

netrum (nēt'rūm) *n.* [A.S. *net*, mesh-work.] The initial spindle of a dividing cell.

netted,—reticulate.

netted-veined,—with veins in form of a network.

netting cells,—stinging cells in coelenterates; nematocysts.

Neumann's sheath,—dental sheath surrounding dental canaliculi.

neurad (nūr'rād) *adv.* [Gk. *neuron*, nerve; L. *ad*, to.] Dorsally.

neural (nūr'rāl) *a.* [Gk. *neuron*, nerve.] *Pert.* or closely connected with nerves or nervous tissues.

neural arch,—arch formed on dorsal surface of vertebral centrum, by neural plates and neural spine, for passage of spinal cord.

neural canal,—canal formed by neural arches.

neural gland,—a body on ventral side of nerve ganglion in ascidians, presumable homologue of hypophysis in Craniata.

neural lobe,—infundibular process of pituitary gland or pars nervosa of neurohypophysis.

neural plates,—lateral members of a neural arch; median row, usually of eight bony plates, in carapace of turtle.

neural shields,—horny shields above neural plates of turtles.

neural stalk,—infundibulum of neurohypophysis.

neurapophysis (nūrāpōf'isis) *n.* [Gk. *neuron*, nerve; *apo*, from; *phyein*, to grow.] The spinous process of a vertebra.

neuriation (nūrā'shūn) *n.* [Gk. *neura*, sinew.] Disposition of nervures; nervation; neurvation.

neuraxis (nūrāk'sis) *n.* [Gk. *neuron*, nerve; L. *axis*, axle.] The cerebro-spinal axis; a neuraxon.

neuraxon (nūrāk'sōn) *n.* [Gk. *neuron*, nerve; *axon*, axle.] The central cylinder of a medullated nerve-fibre; axis cylinder,

neurectoderm (nūrēktōdērm) *n.* [Gk. *neuron*, nerve; *ektos*, outside; *derma*, skin.] The ectodermal cells forming the earliest rudiment of the nervous system, *opp.* skin ectoderm.

neurenteric (nūrēntēr'ik, nūrēn'tēr'ik) *a.* [Gk. *neuron*, nerve; *enteron*, gut.] *Pert.* neurocoel and enteric cavity; *appl.* canal, temporarily connecting posterior end of central canal of spinal cord with posterior end of enteric cavity.

neuric (nūr'rik) *a.* [Gk. *neuron*, nerve.] *Pert.* nerves; *pert.* nervous system; neural.

neuricity (nūris'iti) *n.* [Gk. *neuron*, nerve.] Property peculiar to nerves.

neurilemma (nūr'ilēm'ā) *n.* [Gk. *neuron*, nerve; *lemma*, skin.] Neurolemma, *q.v.*; sheath of Henle, *q.v.*

neurility (nūr'il'iti) *n.* [Gk. *neuron*, nerve.] The stimuli-transmitting capacity of nerves.

neurite (nūr'it) *n.* [Gk. *neuron*, nerve.] The axis-cylinder process; axon, *q.v.*

neurobiotaxis (nūrōbī'ōtāk'sis) *n.* [Gk. *neuron*, nerve; *bios*, life; *taxis*, arrangement.] Tendency of nerve fibres or ganglion cell groups

to migrate, or growth of dendrites, towards source of most frequent stimulus.

neuroblasts (nū'rōblāsts) *n. plu.*

[Gk. *neuron*, nerve; *blastos*, bud.]

Special epithelial cells from which nerve cells are formed.

neurocentral (nū'rōsen'trāl) *a.* [Gk.

neuron, nerve; L. *centrum*, centre.]

Appl. two vertebral synchondroses persisting during first few years of human life.

neurochord (nū'rōkōrd) *n.* [Gk.

neuron, nerve; *chorde*, string.]

A giant fibre, *q.v.*

neurocirrus (nū'rōsīr'ūs) *n.* [Gk.

neuron, nerve; L. *cirrus*, curl.]

The cirrus of neuropodium of a polychaete annelid.

neurocoel (nū'rōsēl) *n.* [Gk. *neuron*,

nerve; *koilos*, hollow.] The cavity

of central nervous system.

neurocranium (nū'rōkrā'nīum) *n.*

[Gk. *neuron*, nerve; *kranion*, skull.]

The cartilaginous or bony case containing the brain and capsules of special sense organs; *cf.* viscerocranium.

neurocrine (nū'rōkrīn) *a.* [Gk. *neu-*

ron, nerve; *krinein*, to separate.]

Pert. secretory function of nervous tissue or cells; neurosecretory.

n. A substance or hormone liberated at nerve endings; neurohumor.

neurocyte (nū'rōsīt) *n.* [Gk. *neuron*,

nerve; *kytos*, hollow.] Nerve cell

with its outgrowths; neurone.

neurocyton (nū'rōsīt'ōn) *n.* [Gk.

neuron, nerve; *kytos*, hollow.] The

body of a nerve cell; cyton.

neurodendron (nū'rōdēn'drōn) *n.*

[Gk. *neuron*, nerve; *dendron*, tree.]

A dendrite.

neuro-epithelium (nū'rō-ēpithe-

līum) *n.* [Gk. *neuron*, nerve; *epi*,

upon; *thelē*, nipple.] Superficial

layer of cells where specialised for a sense-organ.

neuro-fibrils (nū'rōfī'brīlz) *n. plu.*

[Gk. *neuron*, nerve; L. *fibrilla*, fine

fibre.] Exceedingly fine fibres of which a medullated nerve fibre is composed; fibrils in nerve cells, and

extending into dendrites and axons; neurofibrillae.

neurogenesis (nū'rōjēn'ēsīs) *n.* [Gk.

neuron, nerve; *genesis*, descent.]

Nerve production.

neurogenic (nū'rōjēn'ik) *a.* [Gk.

neuron, nerve; *genos*, birth.]

Depending on discharge of nervous stimuli, as certain muscular contractions.

neuroglandular (nū'rōglān'dulār) *a.*

[Gk. *neuron*, nerve; L. *glandula*,

small acorn.] Having both nervous

and glandular functions; *pert.* relation between nervous system and

glands.

neuroglia (nū'rōglī'ā, nū-rōglē'ā) *n.*

plu. [Gk. *neuron*, nerve; *glia*,

glue.] Cells, fibrous or proto-

plasmic, supporting nerve cells

and nerve fibres; astrocytes and

oligodendrocytes.

neurohumor (nū'rōhū'mōr) *n.* [Gk.

neuron, nerve; L. *humor*, mois-

ture.] Hormone produced by ner-

vous tissue or associated glands

which activates or inhibits other

nervous tissue or its effectors;

neurohormone.

neurohypophysis (nū'rōhīpōf'īsīs) *n.*

[Gk. *neuron*, nerve; *hypo*, under;

phēin, to grow.] The pars nervosa

of posterior lobe and infundibulum

of pituitary gland; neural lobe

and stalk.

neuroid (nū'roid) *a.* [Gk. *neuron*,

nerve; *eidos*, form.] Like a nerve;

appl. intercellular conduction by

non-nervous tissue; *appl.* intra-

cellular transmission of stimuli, as

in protozoa.

neurokeratin (nū'rōkēr'ātin) *n.* [Gk.

neuron, nerve; *keras*, horn.] A

pseudokeratin of nervous tissue.

neurolemma (nū'rōlē'm'ā) *n.* [Gk.

neuron, nerve; *lemma*, skin.] A

delicate elastic membrane out-

side medullary sheath of nerve fibre;

primitive sheath, nucleated sheath

of Schwann.

neurology (nū'rōl'ōji) *n.* [Gk. *neu-*

ron, nerve; *logos*, discourse.] The

study of the morphology, physiology,

and pathology of the nervous

system.

neurolymph (nū'rōlimf) *n.* [Gk. *neuron*, nerve; L. *lymp̄a*, water.] Cerebrospinal fluid.

neuromasts (nū'rōmāsts) *n. plu.* [Gk. *neuron*, nerve; *mastos*, knoll.] Groups of sensory cells in lateral line system of fishes.

neuromere (nū'rōmēr) *n.* [Gk. *neuron*, nerve; *meros*, part.] A spinal segment corresponding in length to extent of attachment of pair of spinal nerves, a division of convenience, not structural; segmental ganglion of annelids and arthropods.

neuromery (nūrōm'ērī) *n.* [Gk. *neuron*, nerve; *meros*, part.] Appearance of segmentation in developing nervous system.

neuromuscular (nū'rōmūs'kūlār) *a.* [Gk. *neuron*, nerve; L. *musculus*, muscle.] *Pert.* nerve and muscle; *appl.* muscle containing both striped and smooth fibres; neuromyal.

neuromyal (nū'rōmī'āl) *a.* [Gk. *neuron*, nerve; *mys*, muscle.] Neuromuscular; *appl.* junction of end-plate and muscle as a functional unit.

neurone (nū'rōn) *n.* [Gk. *neuron*, nerve.] The nerve cell with its outgrowths, structural unit of the nervous system; neuron; neurocyte.

neurone (nū'rōnēm) *n.* [Gk. *neuron*, nerve; *nema*, thread.] A nerve fibril running parallel to a myoneme in an infusorian.

neuronephroblast (nū'rōnēf'rōblāst) *n.* [Gk. *neuron*, nerve; *nephros*, kidney; *blastos*, bud.] One of cells derived from one of megameres, in segmenting egg of Clepsine, which later give rise to part of germinal bands from which nerve cord and nephridia develop.

neurophags (nū'rōfāgz) *n. plu.* [Gk. *neuron*, nerve; *phagein*, to eat.] Phagocytic cells that encroach upon and destroy nerve cells in old age.

neurophan (nū'rōfān) *a.* [Gk. *neuron*, nerve; *phainein*, to appear.] Nervous, sensory; *appl.* supposed nervous fibrils of Ciliata.

neuropile (nū'rōpil) *n.* [Gk. *neuron*, nerve; *pilos*, felt.] In ganglia, as of earthworm, a network of processes of association, motor, and sensory neurones; neuropil; neuropileus; punctate or plexiform intercellular substance of grey matter, forming layer of glial expansions and dendrites constituting the synaptic field; neuropilema.

neuropiasm (nū'rōplāzm) *n.* [Gk. *neuron*, nerve; *plasma*, form.] The undifferentiated portion or interfibrillar substance of cytoplasm of a neurone.

neuropodium (nū'rōpō'diūm) *n.* [Gk. *neuron*, nerve; *pous*, foot.] Ventral lobe of polychaetan parapodium; terminal fibril of non-medullated nerve fibre.

neuropore (nū'rōpōr) *n.* [Gk. *neuron*, nerve; *poros*, passage.] Anterior opening of neurocoel to exterior.

neuropterous (nūrōp'tērūs) *a.* [Gk. *neuron*, nerve; *pteron*, wing.] Having wings with network of nervures; lace-winged.

neurosecretory (nū'rōsēkrē'tōrī) *a.* [Gk. *neuron*, nerve; L. *secerere*, to separate.] *Appl.* or *pert.* gland-like nerve cells.

neuroskeleton (nū'rōskēl'ētōn) *n.* [Gk. *neuron*, nerve; *skeletos*, dried up.] Endoskeleton.

neurosomes (nū'rōsōmz) *n. plu.* [Gk. *neuron*, nerve; *soma*, body.] Mitochondria of nerve cells.

neurosynapse (nū'rōsināps') *n.* [Gk. *neuron*, nerve; *synapsis*, union.] Contiguity of nerve cells through terminal arborisations.

neurotendinous (nū'rōtēn'dīnūs) *a.* [Gk. *neuron*, nerve; L. *tendere*, to stretch.] Concerning nerves and tendons.

neurotome,—neuromere.

neurotrophic (nū'rōtrōf'ik) *a.* [Gk. *neuron*, nerve; *trephein*, to nourish.] Nourishing the nervous system.

neurotropic (nū'rōtrōp'ik) *a.* [Gk. *neuron*, nerve; *trephein*, to turn.] *Pert.* neurotropism; acting upon nervous tissue; *appl.* viruses, bacteria, toxins, stains.

neurotropism (nūrōt'rōpizm) *n.* [Gk. *neuron*, nerve; *trepein*, to turn.] The attraction exerted by nervous tissue upon developing nerve tissue.

neurotubules,—delicate structures within axones, observed with the aid of an electron-microscope.

neurula (nūrŭlā) *n.* [Gk. *neuron*, nerve.] The stage in development of Chordata which coincides with formation of the medullary or neural tube.

neuston (nūr'stōn) *n.* [Gk. *neustos*, floating.] Organisms floating or swimming in surface water, or inhabiting surface film.

neuter (nūr'tēr) *a.* [L. *neuter*, of neither sex.] Sexless; having neither stamens nor pistils.

neutral (nūr'trāl) *a.* [L. *neuter*, neither.] Neither male nor female; neither acid nor alkaline, $pH=7$; achromatic, as white, grey, and black; day-neutral, *q.v.*

neutrocyte (nūr'trōsīt) *n.* [L. *neutro*, to neither side; Gk. *kytos*, hollow.] A neutrophil leucocyte.

neutrophil (nūr'trōfil) *a.* [L. *neuter*, neither; Gk. *philein*, to love.] *Appl.* white blood corpuscles whose granules stain only with neutral stains; neutrophilic. *n.* A polymorphonuclear leucocyte.

N-factor,—a certain antigen in erythrocytes of higher animals.

niacin,—nicotinic acid, *q.v.*

niche (nich) *n.* [F. *niche*, from It. *nicchia*, recess in wall.] The place or status of an organism in its biotic environment; *cf.* microhabitat.

nicotinic acid,—the pellagra-preventive or P-P factor of vitamin B complex; niacin; $C_6H_5O_2N$.

nictitant (nik'titānt) *a.* [L. *nictare*, to wink.] *Appl.* an ocellus with central lunate spot.

nictitating membrane,—third eyelid, a membrane which assists in keeping eye clean, in reptiles, birds, mammals.

nidamental (nīd'āmēn'tāl) *a.* [L. *nidamentum*, material for a nest.] *Appl.* glands which secrete material for an egg-covering.

nidation (nīdā'shūn) *n.* [L. *nidus*, nest.] The renewal of uterus lining between menstrual periods; embedding of fertilised ovum in uterine mucous membrane.

nidicolous (nīdik'ōlūs) *a.* [L. *nidus*, nest; *colere*, to dwell.] Living in the nest for a time after hatching.

nidifugous (nīdīf'ūgūs) *a.* [L. *nidus*, nest; *fugere*, to flee.] Leaving the nest soon after hatching.

nidulant (nīd'ūlānt) *a.* [L. *dim.* of *nidus*, nest.] Partially surrounded or lying free in a hollow or cup-like structure.

nidulus (nīd'ūlūs) *n.* [L. *nidulus*, small nest.] A group of nerve-cell bodies in central nervous system; the nucleus from which a nerve originates.

nidus (nī'dūs) *n.* [L. *nidus*, nest.] A nest; a nest-like hollow; a nucleus; a cavity for development of spores; nest of cells replacing epithelial cells of mid-gut in Orthoptera; focus or primary site of an infection.

nidus hirundinalis,—a fossa of cerebellum; nidus avis.

nigrescent (nigrēs'ēnt) *a.* [L. *nigrescere*, to turn black.] Nearly black; blackish.

nipple (nipl) *n.* [*Dim.* of A.S. *nib*, for *neb*, nose.] Teat; mammary papilla; mamilla.

Nissl granules [F. *Nissl*, German neurologist]. Angular particles, consisting mainly of nucleoprotein, found in cytoplasm of unfatigued nerve cells; chromophil or tigroid bodies.

nisus (nī'sūs) *n.* [L. *nisus*, effort.] Strong tendency; effort; muscular contraction for expulsion of eggs, young, or excreta.

nisus formativus (nī'sūs fōrmātī'vūs) *n.* [L. *nisus*, effort; *formare*, to form.] The tendency to reproduce.

nitid (nīt'id), **nitidous** (nīt'idūs) *a.* [L. *nitidus*, shining.] Glossy.

nitrification (nī'trifikā'shūn) *n.* [Gk. *nitron*, seda; L. *facere*, to make.] Oxidation of ammonia to nitrites and of nitrites to nitrates, as by action of bacteria.

nitrocobalamin,—vitamin B_{12c}.

nitrogenous (nītrōj'ēnūs) *a.* [Gk. *nitron*, soda; *genos*, descent.] *Pert.* or containing nitrogen.

nitrogenous equilibrium,—equilibrium of body maintained by equality of income and output of nitrogen.

nitrophilous (nītrōf'īlūs) *a.* [Gk. *nitron*, soda; *philein*, to love.] Thriving in nitrogenous soils.

nitrophyte (nī'trōfit) *n.* [Gk. *nitron*, soda; *phyton*, plant.] A nitrophilous plant.

nociceptive (nōs'isēp'tiv) *a.* [L. *nocere*, to hurt; *capere*, to take.] *Appl.* stimuli which tend to injure tissue or induce pain; *appl.* reflexes which protect from injury.

nociceptor (nōsisēp'tōr) *n.* [L. *nocere*, to hurt; *capere*, to take.] A receptor sensitive to injurious stimuli.

noctiluculent (nōk'tiloo'sēnt, -lū'-) *a.* [L. *nox*, night; *lucere*, to shine.] Phosphorescent; luminescent.

nocturnal (nōktūr'nāl) *a.* [L. *nox*, night.] Seeking food and moving about at night only; occurring at night.

nodal (nō'dāl) *a.* [L. *nodus*, knob.] *Pert.* a node or nodes.

node (nōd) *n.* [L. *nodus*, knob.] The knob or joint of a stem at which leaves arise; aggregation of specialised cardiac cells, as atrioventricular and sinuatrial nodes; a lymph gland; one of the constrictions of medullary sheath or nodes of Ranvier; *nodus*.

nodose (nōd'ōs) *a.* [L. *nodus*, knob.] Having intermediate and terminal joints thicker than remainder; having knots or swellings.

nodular (nōd'ulār) *a.* [L. *nodulus*, *dim.* of *nodus*, knob.] *Pert.* a nodule or knot.

nodule (nōd'ul) *n.* [L. *nodulus*, *dim.* of *nodus*, knob.] A small knob-like structure, as root-nodule, lymphatic nodule; anterior part of inferior vermis of cerebellum.

noduliferous (nōd'ulif'ērūs) *a.* [L. *nodulus*, *dim.* of *nodus*, knob;

ferre, to carry.] Bearing nodules; *appl.* roots of leguminous plants.

nodulus,—nodule.

nodus (nō'dūs) *n.* [L. *nodus*, knob.] A node; indentation near middle of anterior or costal margin of wing in Odonata.

noematic (nōēmāt'ik) *a.* [Gk. *noema*, thought.] *Pert.* mental processes.

nomenclature (nō'mēnklā'tūr, nō-mēn'klātūr) *n.* [L. *nomen*, name; *calare*, to call.] System of naming plants, animals, organs, etc.; binomial nomenclature.

nomogenesis (nō'mōjēn'ēsis) *n.* [Gk. *nomos*, law; *genesis*, descent.] View that development and evolution are governed by laws of development and not by environment.

non-conjunction,—failure of chromosome pairing.

non-deciduate,—indeciduate.

non-disjunction,—failure of a normal pair of chromosomes to separate at meiosis.

non-medullated, non-myelinated, *appl.* nerve fibres without medullary sheath; amyelinate.

non-striated,—unstriped; plain or involuntary, *appl.* muscle.

non-viable,—incapable of developing normally or of surviving parturition.

noosphere (nō'ōsfēr) *n.* (Gk. *noos*, mind; *sphaira*, globe.) The part of the globe containing living organisms as influenced by the human mind.

noradrenaline,—precursor of adrenaline; norepinephrine.

norma (nōr'mā) *n.* [L. *norma*, rule.] View of the skull as a whole from certain points.

normoblasts (nōr'mōblāsts) *n. plu.* [L. *norma*, rule; Gk. *blastos*, bud.] Immature nucleated red blood corpuscles, derived from polychromatophil erythroblasts; metarubricytes.

normocyte (nōr'mōsit) *n.* [L. *norma*, rule; Gk. *kutos*, hollow.] The fully developed red blood corpuscle.

nosogenic (nös'ojën'ik) *a.* [Gk. *nosos*, disease; *gennaein*, to produce.] Causing disease; pathogenic.

nostrils (nös'trîlz) *n. plu.* [A.S. *nosthyrl*, nostril.] The external openings of the nose; nares.

notal (nō'tāl) *a.* [Gk. *noton*, back.] Dorsal; *pert.* the back; *pert.* notum.

notate (nō'tāt) *a.* [L. *notatus*, marked.] Marked with lines or spots.

nothocline (nōth'ōklin) *n.* [Gk. *nothos*, illegitimate; *klinein*, to slant.] The serial arrangement of characters or forms produced by crossing species; hybrid cline.

notocephalon (nō'tösëf'älön) *n.* [Gk. *noton*, back; *kephale*, head.] Dorsal shield of leg-bearing segments in certain Acarina; podosomatal plate; *cf.* notogaster.

notochord (nō'tökörd) *n.* [Gk. *noton*, back; *chorde*, cord.] The dorsal supporting axis of lowest vertebrates, transitory in the others; chorda dorsalis.

notochordal (nō'tökör'däl) *a.* [Gk. *noton*, back; *chorde*, cord.] *Pert.* or enveloping notochord; *appl.* sheath, tissue, etc.

notocirrus (nō'tösir'üs) *n.* [Gk. *noton*, back; L. *cirrus*, curl.] Cirrus of notopodium of Polychaeta.

Notogaea (nō'töjë'ä, -gä'yä) *n.* [Gk. *notos*, south; *gaia*, earth.] Zoogeographical area comprising Australian, New Zealand, and Pacific Ocean Islands regions, and formerly, neotropical region.

notogaster (nō'tögäs'tër) *n.* [Gk. *noton*, back; *gaster*, belly.] Posterior dorsal shield in certain Acarina; opisthosomatal plate; *cf.* notocephalon.

notogenesis (nō'töjën'ësîs) *n.* [Gk. *noton*, back; *genesis*, origin.] Development of the notochord, and the associated stage of mesoderm differentiation.

notonectal (nō'tönëk'täl) *a.* [Gk. *noton*, back; *nektos*, swimming.] Swimming back downwards.

notopodium (nō'töpö'diüm) *n.* [Gk.

noton, back; *pous*, foot.] Dorsal lobe of polychaetan parapodium.

nototribe (nō'töttrib) *a.* [Gk. *noton*, back; *tribein*, to rub.] *Appl.* flowers whose anthers and stigma touch back of insect as it enters calyx, a device for securing cross-fertilisation.

notum (nō'tüm) *n.* [Gk. *noton*, back.] The dorsal portion of insect segment; tergum.

nucellus (nüsë'l'üs) *n.* [L. *dim.* of *nux*, nut.] Parenchymatous tissue between ovule or megaspore and its inner integument, and extending from chalaza at base to micropyle at apex.

nuchal (nü'käl) *a.* [L.L. *nucha*, nape of neck.] *Pert.* nape of the neck; *appl.* two sense organs, regarded as olfactory, on prostomium of Chaetopoda; *appl.* thin cartilage between head and anterior dorsal part of mantle in decapod Cephalopoda; *appl.* anterior plate of chelonian carapace; *appl.* flexure of medulla oblongata. *n.* An unpaired posterior dorsal skull bone in Chondrostei.

nuciferous (nüsif'ërüs) *a.* [L. *nux*, nut; *ferre*, to carry.] Nut-bearing.

nucivorous (nüsiv'örüs) *a.* [L. *nux*, nut; *vorare*, to devour.] Nut-eating.

nuclear (nü'klëär) *a.* [L. *nucleus*, kernel.] *Pert.* a nucleus.

nuclear disc,—a star-like structure formed by chromosomes in equator of spindle during mitosis.

nuclear layer,—internal layer of cerebellar cortex; inner n.l. of retina, between inner and outer plexiform layers, and outer n.l., between outer plexiform layer and limiting membrane of layer of rods and cones.

nuclear membrane,—delicate membrane bounding a nucleus, formed from surrounding cytoplasm.

nuclear plate,—the equatorial plate.

nuclear spindle,—a spindle-shaped structure formed of fine fibrils, in cytoplasm surrounding nucleus, a stage in mitosis.

nuclease (nū'klēās) *n.* [L. *nucleus*, kernel.] Enzyme of pancreatic and other cells.

nucleate (nū'klēāt) *a.* [L. *nucleus*, kernel.] Having a nucleus. *v.* To form into a nucleus. *n.* An ester or salt of nucleic acid.

nucleation (nūklēā'shūn) *a.* [L. *nucleus*, kernel.] Nucleus formation.

nuclei,—*plu.* of nucleus.

nucleic (nū'klēik) *a.* [L. *nucleus*, kernel.] *Appl.* and *pert.* acids containing phosphorus, found in nuclei of cells.

nucleiform (nū'klēifōrm) *a.* [L. *nucleus*, kernel; *forma*, shape.] Shaped like a nucleus.

nuclein (nū'klēin) *n.* [L. *nucleus*, kernel.] A nucleoprotein found in nuclei,—yields a protein and nucleic acid by action of pancreatic juice; $C_{29}H_{46}O_{22}N_9P_3$.

nucleochylema (nū'klēōkīlē'mā) *n.* [L. *nucleus*, kernel; Gk. *chylos*, juice.] Karyenchyma, nuclear sap.

nucleochyme,—karyenchyma, *q.v.*

nucleohyaloplasm (nū'klēōhī'ālōplāzm) *n.* [L. *nucleus*, kernel; Gk. *hyalos*, glass; *plasma*, mould.] The semi-fluid ground-substance of a nucleus; nuclear sap.

nucleoid (nū'klēoid) *a.* [L. *nucleus*, kernel; Gk. *eidos*, form.] Resembling a nucleus. *n.* A nucleus-like body occurring in certain blood corpuscles; a body taking part in bacterial cell division.

nucleolar (nūklē'ölār) *a.* [L. *dim.* of *nucleus*, kernel.] *Pert.* a nucleolus.

nucleolar organiser,—granule, or a gene, which collects or secretes the nucleolus.

nucleolinus (nū'klēōlī'nūs) *n.* [*Dim.* of L. *nucleus*, kernel.] Small deeply staining intra-nucleolar granule which may divide in mitosis.

nucleolo-centrosome,—a nuclear body which may act as a centrosome during mitosis.

nucleolus (nūklē'ölūs) *n.* [L. *nucleolus*, *dim.* of *nucleus* little kernel.] A rounded mass occurring in a nucleus; a plasmosome or a karyosome.

nucleolysis,—karyolysis.

nucleomicrosomes (nū'klēōmī'krōsōmz) *n. plu.* [L. *nucleus*, kernel; Gk. *mikros*, small; *soma*, body.] Nuclear chromatin granules.

nucleoplasm (nū'klēōplāzm) *n.* [L. *nucleus*, kernel; Gk. *plasma*, mould.] Reticular nuclear substance; karyoplasm; *cf.* cytoplasm.

nucleoprotein (nū'klēōprō'tēin) *n.* [L. *nucleus*, kernel; Gk. *protos*, first.] A compound of protein and nucleic acid, a constituent of cell nuclei.

nucleus (nū'klēūs) *n.* [L. *nucleus*, kernel.] Complex spheroidal mass essential to life of most cells; mass of grey matter in central nervous system; a nidulus; centre of origin or hilum of starch grain; centre around which are formed the growth-rings of cycloid and ctenoid fish-scales; centre of perithegium in certain fungi; a protoconch, *q.v.*

nucleus ambiguus,—cells in medulla oblongata from which originate the motor fibres of glossopharyngeal and vagus, and of cerebral part of spinal accessory nerves.

nucleus pulposus,—the soft core of an intervertebral disc, remnant of notochord.

nuculanium (nū'kulā'nīum) *n.* [L. *nucula*, small nut.] A fleshy fruit, like a grape, differing from a berry in being superior.

nucule (nū'kūl) *n.* [L. *nucula*, small nut.] Nutlet; oogonium in Characeae.

nudibranchiate (nū'dibrāng'kiāt) *a.* [L. *nudus*, naked; *branchiae*, gills.] Having gills not covered by a protective shell or membrane.

nudicaudate (nū'dikōd'āt) *a.* [L. *nudus*, naked; *cauda*, tail.] Having a tail not covered by hair or fur.

nudicaulous (nū'dikōl'ūs) *a.* [L. *nudus*, naked; *caulis*, stem.] *Appl.* or having stems without leaves.

nudiflorous (nū'diflō'rūs) *a.* [L. *nudus*, naked; *flos*, flower.] Having flowers without glands or hairs.

nudum (nū'dūm) *n.* [L. *nudus*, naked.] Small bared area, as sensitive portion of antenna of butterflies.

Nuhn, glands of [*A. Nuhn*, German anatomist]. Anterior lingual glands or Blandin's glands.

nulliplex (nū'iplēks) *a.* [L. *nullus*, none; *plexus*, interwoven.] Having recessive but no dominant genes for a given character, in polyploidy.

numerical,—*appl.* hybrid of parents that have different chromosome numbers.

nummulation (nūm'ulā'shūn) *n.* [L. *nummus*, coin.] The tendency of red blood corpuscles to adhere together like piles of coins.

nummulitic (nūm'ulit'ik) *a.* [L. *nummus*, coin.] Like, *pert.*, or containing nummulites.

nuptial flight,—flight taken by queen bee when fertilization takes place.

nurse cells,—single cells or layers of cells attached to or surrounding an egg-cell, for elaboration of food-material; trophocytes.

nurse generation,—an asexual budding generation of some Tunicata, in which phorozoids act as foster parents to later formed buds, the gonozoids.

nurture (nūr'tūr) *n.* [O.F. *noriture*, nursing.] The sum-total of environmental influences, *opp.* nature.

nut (nūt) *n.* [A.S. *knutu*, nut.] Dry, indehiscent one-celled fruit with hard pericarp; glans.

nutant (nū'tānt) *a.* [L. *nutare*, to nod.] Bent downwards; drooping.

nutation (nūtā'shūn) *n.* [L. *nutare*, to nod.] Curvature or change of position in organs of a growing plant; slow rotating movement by pseudopodia.

nutlet (nūt'lēt) *n.* [*Dim.* of *nut.*] The stone formed in drupaceous fruits; achene of a schizocarp.

nutramins,—vitamins.

nutricism (nū'trisizm) *n.* [L. *nutrix*, nurse.] Symbiotic relationship with all the benefit to one partner.

nutrient (nū'triēt) *a.* [L. *nutrire*,

to nourish.] Nourishing; *appl.* artery to marrow of bone, and foramen of entry. *n.* Food substance.

nutrilites (nū'trilits) *n. plu.* [L. *nutrire*, to nourish.] Accessory organic food substances; bios; vitamins.

nutrition (nūtrish'ūn) *n.* [L. *nutrire*, to nourish.] The ingestion, digestion, and assimilation of food materials by animals and plants.

nutritive (nū'tritiv) *a.* [L. *nutrire*, to nourish.] Concerned in function of nutrition; *appl.* yolk, polyp, zooid, plasma, etc.

nyctanthous (niktān'thūs) *a.* [Gk. *nyktos*, by night; *anthos*, flower.] Flowering at night.

nyctinasty (nik'tinās'ti) *n.* [Gk. *nyktios*, nightly; *nastos*, pressed close.] Sleep movement of plants.

nyctipelagic (nik'tipēlāj'ik) *a.* [Gk. *nyktios*, nightly; *pelagos*, sea.] Rising to surface of sea only at night.

nyctitropism (nik'titrōp'izm, niktit'rōpizm) *n.* [Gk. *nyktios*, nightly; *trepein*, to turn.] Tendency of certain leaves to curve upwards at night; sleep movement; nyctinasty; nyctitropic curvature.

nymph (nimf) *n.* [Gk. *nymphē*, chrysalis.] A stage following the larval in insect metamorphosis; formerly: a pupa.

nymphae (nim'fē) *n. plu.* [Gk. *nymphē*, bride.] The labia minora; shell edges to which the hinge ligaments are attached, in bivalves; a pair of sclerites beneath epigynal plate in mites.

nymphal (nim'fāl) *a.* [Gk. *nymphē*, chrysalis.] *Pert.* a nymph; *appl.* hormone secreted by corpus allatum during early stages and inhibiting premature metamorphosis.

nymphiparous,—pupiparous, *q.v.*

nymphochrysalis (nim'fōkris'ālis) *n.* [Gk. *nymphē*, pupa; *chrysalis*, from *chrysos*, gold.] Pupa-like resting stage between larval and nymphal form in certain mites.

nymphosis (nim'fōsis) *n.* [Gk. *nymphē*, chrysalis.] The process of changing into a nymph or a pupa.

O

oar-feathers, — the wing-feathers used in flight.

ovarium,—ovarium, ovary.

obcompressed (öb'kömpräst') *a.* [L. *ob*, towards; *comprimere*, to compress.] Flattened in a vertical direction.

obcordate (öbkôr'dât) *a.* [L. *ob*, against; *cor*, heart.] Inversely heart-shaped; *appl.* leaves which have stalk attached to apex of heart; obcordiform.

obcurrent (öbkür'ënt) *a.* [L. *ob*, against; *currere*, to run.] Converging, and attaching at point of contact.

obdiplotemonous (öbdíplöstēm'-önūs) *a.* [L. *ob*, against; Gk. *diploos*, double; *stemon*, warp.] With outer series of stamens opposite petals.

obelion (öbē'liön) *n.* [Gk. *obelos*, a spit.] The point between parietal foramina, on sagittal suture.

obex (öb'ëks) *n.* [L. *obex*, obstacle.] A triangular layer of grey matter, also a membranous ependymal layer, in roof of fourth ventricle; a limiting factor, *appl.* plant distribution. *Plu.* obices.

obimbricate (öbím'brikât) *a.* [L. *ob*, reversely; *imbrex*, tile.] With regularly overlapping scales, with the overlapping ends downwards.

oblanceolate (öblän'sēölât) *a.* [L. *ob*, reversely; *lancea*, spear.] Inversely lanceolate.

obligate (öb'ligât) *a.* [L. *obligatus*, bound.] Obligatory; limited to one mode of life or action; not optional; *appl.* aerobes, anaerobes; *appl.* sexual reproduction; *appl.* parthenogenesis; *appl.* saprophytes; *appl.* parasites which cannot exist independently of a host; *appl.* symbionts. *Opp.* facultative.

oblique (öblēk') *a.* [L. *obliquus*, slanting.] Placed obliquely; *appl.* septum forming ventral wall of thoracic air-sac in birds; *appl.* vein of left atrium, etc.; asymmetrical,

appl. leaves; *appl.* cleavage: alternating or spiral.

obliquus (öblē'kwūs) *n.* [L. *obliquus*, slanting.] An oblique muscle, as of ear, eye, head, abdomen.

obliterate (öblit'ērât) *a.* [L. *obliteratus*, erased.] Indistinct or profuse; *appl.* markings on insects; suppressed.

oblongata,—medulla oblongata, *q.v.*

obovate (öbö'vât) *a.* [L. *ob*, against; *ovum*, egg.] Inversely egg-shaped; *appl.* leaf with narrow end attached to stalk; *appl.* spores.

obovoid (öbö'void) *a.* [L. *ob*, against; *ovum*, egg; Gk. *eidōs*, shape.] Inversely ovoid; roughly egg-shaped, with narrow end downwards.

obsolescence (öbsölēs'ëns) *n.* [L. *obsolescere*, to wear out.] The gradual reduction and consequent disappearance of a species; gradual cessation of a physiological process; a blurred portion of a marking on an animal.

obsolete (öb'sölēt) *a.* [L. *obsolescere*, to wear out.] Wearing out or disappearing; *appl.* any character that is becoming less and less distinct in each succeeding generation; *appl.* calyx united with ovary or reduced to a rim.

obsubulate (öbsü'būlât) *a.* [L. *ob*, against; *subula*, awl.] Reversely awl-shaped or subulate; narrow and tapering from tip to base.

obtect (öbtëkt') *a.* [L. *obtectus*, covered over.] *Appl.* pupa with wings and legs held to body. *Opp.* exarate.

obturator (öb'tūrâ'tör) *a.* [L. *obturare*, to close.] *Pert.* any structure in neighbourhood of obturator foramen.

obturator foramen,—an oval foramen between ischium and os pubis.

obtuse (öbtūs') *a.* [L. *obtusus*, blunt.] With blunt or rounded end; *appl.* leaves; *appl.* left margin of heart.

obtusilingual (öbtü'silling'gwäl) *a.* [L. *obtusus*, blunt; *lingua*, tongue.] Short-tongued.

obumbrate (öbüm'brät) *a.* [L. *obumbrare*, to overshadow.] With some structure overhanging the parts so as partially to conceal them.

obverse (öbvërs') *a.* [L. *obvertere*, to turn round.] With base narrower than apex.

obvolute (öb'völüt) *a.* [L. *obvolvere*, to wrap round.] Overlapping; *appl.* veneration when half of one leaf is wrapped round half of another similar leaf; half-equant.

obvolvent (öbvöl'vent) *a.* [L. *obvolvere*, to wrap round.] Bent downwards and inwards; *appl.* wings, elytra of insects, etc.

occipital (öksip'itäl) *a.* [L. *occiput*, back of head.] *Pert.* back part of head or occipital bones.

occipitalia (ök'sipitä'liä) *n. plu.* [L. *occiput*, back of head.] The group of parts of cartilaginous brain case forming back part of head; occipital bones.

occipito-atlantal (öksip'itöätlä'n'täl) *a.* [L. *occiput*, back of head; Gk. *Atlas*, a Titan.] *Appl.* membrane closing gap between skull and neural arch of atlas in amphibians; *appl.* dorsal (posterior) and ventral (anterior) membranes between margin of foramen magnum and atlas in mammals; atlanto-occipital.

occipito-axial (öksip'itöäk'siäl) *a.* [L. *occiput*, back of head; *axis*, axis.] *Appl.* ligament or membrana tectoria connecting occipital bone with axis or epistropheus.

occipitofrontal (öksip'itöfrün'täl) *a.* [L. *occiput*, back of head; *frons*, forehead.] *Appl.* longitudinal arc of skull; *appl.* fasciculus of long association-fibres between frontal and occipital lobes of cerebral hemispheres; *appl.* muscle, the epicranian.

occiput (ök'sipüt, ök'sipoot) *n.* [L. *occiput*, back of head.] Occipital region of skull; dorsolateral region of insect head.

occlusal (ökloo'säl) *a.* [L. *occludere*, to shut in.] Contacting the opposing surface; *appl.* surfaces of teeth

which touch those of the other jaw when jaws are closed.

occlusion (ökloo'zhün) *n.* [L. *occludere*, to shut in.] Overlapping of activation of motor neurones by simultaneous stimulation of several afferent nerves.

occluser (ökloo'sör) *n.* [L. *occludere*, to shut in.] A closing muscle. *a.* *Appl.* muscles of an operculum or movable lid.

ocellar (ösäl'är) *a.* [L. *ocellus*, little eye.] Of, or *pert.*, ocelli.

ocellate (ös'sälät) *a.* [L. *ocellus*, little eye.] Like an eye or eyes; *appl.* markings on many animals.

ocellated,—having ocelli; having eye-like spots or markings.

ocellation (ös'älä'shün) *n.* [L. *ocellus*, little eye.] Condition of having ocelli, or of having ocellate markings; ocellate marking.

ocelli,—*plu.* of ocellus.

ocelliferous,—ocellated.

ocellus (ösäl'üs) *n.* [L. *ocellus*, little eye.] A simple single eye or eyespot found in many lower animals; an eye-like marking as in many insects, fishes, etc.; a large cell of leaf epidermis, specialised for reception of light.

ochrea,—ocrea.

ochrophore (ö'kröför) *n.* [Gk. *ochros*, pale yellow; *pherein*, to bear.] A yellow pigment-bearing cell; iridocyte.

ocrea (ök'rëä.) *n.* [L. *ocrea*, greave.] A tubular sheath-like expansion at base of petiole; a sheath; partial covering of a stipe, formed by fragments of the disintegrated universal veil; ochrea.

ocreaceous (ök'rëä'shüs) *a.* [L. *ocrea*, greave.] Ocrea-like; *appl.* various structures in plants and animals.

ocreate (ök'rëät) *a.* [L. *ocrea*, greave.] Having an ocrea; booted, sheathed.

octactine (öktäk'tin) *n.* [Gk. *okta*, eight; *aktis*, ray.] A sponge spicule with eight rays, a modification of a hexactine.

octad (ök'täd) *n.* [Gk. *okto*, eight.] A group of eight cells originating by division of a single cell.

octagynous (öktäj'inūs) *a.* [Gk. *okta*, eight; *gyne*, woman.] Having eight pistils.

octamerous (öktäm'erūs) *a.* [Gk. *okta*, eight; *meros*, part.] *Appl.* organs or parts of organs when arranged in eights; *appl.* parts of whorls of certain plants; *appl.* parts of certain Alcyonaria.

octandrous (öktän'drūs) *a.* [Gk. *okta*, eight; *aner*, man.] Having eight stamens.

octant (ök'tánt) *n.* [L. *octo*, eight.] One of eight cells formed by division of fertilised ovule in plants; one of units in eight-celled stage in segmentation of ovum.

octarch (ök'tärk) *a.* [Gk. *okto*, eight; *arche*, element.] With eight vascular bundles.

octogynous,—octagynous.

octopetalous (ök'töpēt'älūs) *a.* [Gk. *okto*, eight; *petalon*, leaf.] Having eight petals.

octophore (ök'töfōr) *n.* [Gk. *okto*, eight; *-phoros*, -bearing.] A modified ascus with eight spores arranged radially, as in *Haerangiumycetes*.

octoploid (ök'töploid) *a.* [Gk. *okto*, eight; *aploos*, onefold; *eidos*, form.] Having eight haploid chromosome sets in somatic cells. *n.* An octoploid organism.

octopod (ök'töpōd) *a.* [Gk. *okto*, eight; *pous*, foot.] Having eight feet or arms.

otoradiant (ök'törä'diāt) *a.* [L. *octo*, eight; *radius*, spoke.] Having eight rays or arms.

octosepalous (ök'tösēp'älūs) *a.* [L. *octo*, eight; F. *sépale*, sepal.] Having eight sepals.

octospore (ök'töspōr) *n.* [Gk. *okto*, eight; *sporos*, seed.] One of eight spores, as formed at end of carpo-gonial filaments, or in an octophore.

octosporous (öktös'pōrūs) *a.* [Gk. *okto*, eight; *sporos*, seed.] Having eight spores.

octostichous (öktös'tikūs) *a.* [Gk. *okto*, eight; *stichos*, row.] Arranged in eight rows; having leaves in eights, in phyllotaxis.

octozoic (ök'tözō'ik) *a.* [Gk. *okto*,

eight; *zoon*, animal.] *Appl.* a spore, of gregarines, containing eight sporozoites.

ocular (ök'ülär) *a.* [L. *oculus*, eye.] *Pert.* or perceived by the eye.

ocular lobe,—projecting thoracic lobe in some beetles.

ocular plates,—plates at end of ambulacral areas in sea-urchins.

oculate (ök'ülāt) *a.* [L. *oculus*, eye.] Having eyes, or eye-like spots.

oculiferous (ök'ülif'erūs), **oculigerous** (ök'üli'erūs) *a.* [L. *oculus*, eye; *ferre*, *gerere*, to carry.] Bearing eyes.

oculofrontal (ök'ülöfrün'täl) *a.* [L. *oculus*, eye; *frons*, forehead.] *Pert.* region of forehead and eye.

oculomotor (ök'ülömō'tör) *a.* [L. *oculus*, eye; *moveo*, to move.] Causing movements of eye-ball; *appl.* third cranial nerve.

oculonasal (ök'ülönä'zäl) *a.* [L. *oculus*, eye; *nasus*, nose.] *Pert.* eye and nose.

oculus (ök'ülūs) *n.* [L. *oculus*, eye.] The eye; a leaf-bud in a tuber.

Oddi's sphincter [R. *Oddi*, Italian anatomist]. Muscle fibres surrounding duodenal end of common bile-duct.

odd-pinnate,—pinnate with one terminal leaflet.

odontoblast (ödön'töbläst) *n.* [Gk. *odous*, tooth; *blastos*, bud.] One of columnar cells on outside of dental pulp that form dentine; one of the cells giving rise to teeth of a radula.

odontobothrion (ödön'töbōth'rīōn) *n.* [Gk. *odous*, tooth; *bothrion*, pit.] Tooth socket; alveolus dentis; phatne.

odontoclast (ödön'tökläst) *n.* [Gk. *odous*, tooth; *klaō*, to break.] One of the large multinucleate cells that absorb roots of milk teeth.

odontogeny (ödöntōj'ēni) *n.* [Gk. *odous*, tooth; *gennaein*, to produce.] The origin and development of teeth.

odontoid (ödön'toid) *a.* [Gk. *odous*, tooth; *eidos*, form.] Tooth-like; *pert.* the odontoid process.

odontoid process,—dens, a tooth-like peg on axis round which atlas rotates, the centrum of atlas, which has first become free and finally fused with axis.

odontology (ödöntöl'öji) *n.* [Gk. *odous*, tooth; *logos*, discourse.] Dental anatomy, histology, physiology, and pathology.

odontophore (ödön'töfö) *n.* [Gk. *odous*, tooth; *pherein*, to carry.] The tooth-bearing organ in molluscs, including the radula, radula sac, cartilage, and muscles.

odontoplast (ödön'töpläst) *n.* [Gk. *odous*, tooth; *plastos*, moulded.] An odontoblast cell.

odontorhynchous,—lamellirostral.

odontosis (ödöntö'sis) *n.* [Gk. *odous*, tooth.] Dentition; organodentogeny.

odontostomatous (ödön'tostöm'ätüs) *a.* [Gk. *odous*, tooth; *stoma*, mouth.] Having tooth-bearing jaws.

odoriphore (öd'örifö) *n.* [L. *odor*, smell; Gk. *pherein*, to carry.] A group of atoms responsible for the odour of a compound.

oecad (ē'käd) *n.* [Gk. *oikade*, to one's home.] A form modified owing to habitat; a somatic modification; oecophene, ecad. *Öpp.* phyad.

oecesis,—oikesis, *q.v.*

oecium (ē'siüm) *n.* [Gk. *oikion*, abode.] The calcareous or chitinous covering of a polyzooid.

oeco-,—see also *eco-*, *oiko-*.

oecoid (ē'koid) *n.* [Gk. *oikos*, house; *eidōs*, form.] The stroma of a blood corpuscle; oikoid.

oecology (ēköl'öji) *n.* [Gk. *oikos*, household; *logos*, discourse.] Ecology.

oecoparasite (ē'köpär'äsit) *n.* [Gk. *oikos*, household; *parasitos*, parasite.] A parasite that can infect a healthy and uninjured host.

oecophene (ē'köfēn) *n.* [Gk. *oikos*, household; *phainein*, to appear.] Ecad, *q.v.*

oecotrophobiosis (ē'kötröföbiö'sis) *n.* [Gk. *oikos*, household; *trophē*, food; *biosis*, a living.] Trophalaxis, *q.v.*

oedematin (ēdē'mätin) *n.* [Gk.

oidema, swelling.] The microsomes of ground-substance of nucleus.

oenocyte (ē'nösit) *n.* [Gk. *oinos*, wine; *kytos*, hollow.] One of large cells from clusters which surround trachea and fat-body of insects and undergo changes in relation to moulting cycle.

oenocytoid (ē'nösit'oid) *n.* [Gk. *oinos*, wine; *kytos*, hollow; *eidōs*, form.] One of rounded acidophil leucocytes in haemolymph of insects.

oesophageal (ēsöf'äjē'al, ēsöfäj'äl) *a.* [Gk. *oisophagos*, gullet.] *Pert.* or near oesophagus, as ganglia.

oesophagus (ēsöf'ägüs) *n.* [Gk. *oisophagos*, gullet.] That part of alimentary canal between pharynx and stomach, or part equivalent thereto.

oestradiol (ē'strädi'öl) *n.* [Gk. *oistros*, gadfly; *diolou*, together.] Ovarian hormone, transformed within organism to oestrone and oestriol; $C_{18}H_{24}O_2$.

oestrin,—oestrone, *q.v.*

oestriol,—one of the oestrogens in pregnancy urine; $C_{18}H_{24}O_3$.

oestrogen (ē'ströjēn) *n.* [Gk. *oistros*, gadfly; *gennaein*, to produce.] A substance which induces oestrus; oestrogenic hormone.

oestrogenic (ē'ströjēn'ik) *a.* [Gk. *oistros*, gadfly; *gennaein*, to produce.] Inducing oestrus; *appl.* hormones.

oestrone (ē'strön) *n.* [Gk. *oistros*, gadfly.] The follicular oestrogenic hormone; oestrin, folliculin, theelin; $C_{18}H_{22}O_2$.

oestrous (ē'strüs) *a.* [Gk. *oistros*, gadfly.] *Pert.* oestrus; oestrua.

oestrus (ē'strüs) *n.* [Gk. *oistros*, gadfly.] The sexual heat of animals; rut; oestrum, oestruation.

offset,—a short prostrate branch which takes root at apex and develops new individuals.

offshoot,—lateral shoot from main stem.

oidia,—*plu.* of oidium.

oidiophore (öid'jöfö) *n.* [Gk. *oon*, egg; *idion*, *dim.*; *pherein*, to bear.] A hypha or hyphal structure bearing oidia.

oidiospore,—oidium.

oidium (ōid'ium) *n.* [Gk. *oon*, egg; *idion*, *dim.*] The conidial stage of some mildews; a thin-walled spore.

oike (oik'ē) *n.* [Gk. *oikein*, to have as one's abode.] Habitat; oikos.

oikesis (oik'ēsīs) *n.* [Gk. *oikesis*, act of dwelling.] The establishment of organisms in a new habitat; ecesis (U.S.A.).

oikoid,—oecoid.

oikology,—ecology.

oikoplast (oik'ōplāst) *n.* [Gk. *oikos*, house; *plastos*, moulded.] One of large glandular ectoderm cells which form gelatinous layer of appendicularians.

oikosite (oik'ōsit) *n.* [Gk. *oikos*, house; *sitos*, food.] A stationary or attached commensal or parasite.

oil gland,—a gland which secretes oil; the uropygial gland in birds.

oleaginous (ōl'ēj'īnūs) *a.* [L. *oleaginus*, *pert.* olive.] Oily; *pert.*, containing, or producing oil.

olecranon (ōlēk'rānōn) *n.* [Gk. *olekranon*, point of elbow.] A large process at upper end of ulna.

oleiferous (ōlēif'ērūs) *a.* [L. *oleum*, oil; *ferre*, to carry.] Producing oil.

olein (ōl'ēin) *n.* [L. *oleum*, oil.] A fat, liquid at ordinary temperatures, found in animal and vegetable tissues.

oleocyst (ōl'ēōsist) *n.* [L. *oleum*, oil; Gk. *kystis*, bladder.] A diverticulum of the nectocalyx.

oleosome,—elaioplast, *q.v.*

olfactory (ōlfāk'tōri) *a.* [L. *olfacere*, to smell.] *Pert.* sense of smell; *appl.* stimuli, structures, reactions.

olfactory lobe,—lobe projecting from anterior lower margin of cerebral hemispheres.

olfactory pit,—an olfactory organ of nature of a small pit or hollow; depression which later forms nasal passage.

olfactory spindle,—sensory cell structure associated with olfactory nerve in antennule of decapod crustaceans; lobus osphradicus.

oligacanthous (ōl'īgākān'thūs) *a.* [Gk. *oligos*, few; *akantha*, spine.] Bearing few spines.

oligandrous (ōl'īgān'drūs) *a.* [Gk. *oligos*, few; *aner*, man.] Having few stamens; oligostemonous.

oligarch (ōl'īgārk) *a.* [Gk. *oligos*, few; *arche*, beginning.] Having few vascular elements or bundles.

oligocarpous (ōl'īgōkār'pūs) *a.* [Gk. *oligos*, few; *karpos*, fruit.] Having few carpels.

Oligocene (ōl'īgōsēn) *n.* [Gk. *oligos*, few; *kainos*, recent.] A Tertiary geological epoch between Eocene and Miocene.

oligodendroglia (ōl'īgōdēn'drōglī'ā, -dēn'drōglē'ā) *n. plu.* [Gk. *oligos*, few; *dendron*, tree; *glia*, glue.] Adendritic neuroglia cells; oligoglia; oligodendrocytes; mesoglia.

oligodynamic (ōl'īgōdīnām'ik) *a.* [Gk. *oligos*, few; *dynamis*, power.] Caused by small or minute forces; functioning in minute quantities.

oligogene (ōl'īgōjēn) *n.* [Gk. *oligos*, few; *gene*, descent.] A qualitative gene or major mutant, *appl.* polygene.

oligogenic (ōl'īgōjēn'ik) *a.* [Gk. *oligos*, few; *gene*, descent.] Controlled by a few genes responsible for major heritable changes, *appl.* characters.

oligoglia (ōl'īgōglī'ā, ōl'īgōglē'ā) *n.* [Gk. *oligos*, few; *glia*, glue.] Oligodendroglia.

oligolecithal (ōl'īgōlē's'ithāl) *a.* [Gk. *oligos*, few; *lekithos*, egg-yolk.] Containing not much yolk.

oligolectic (ōl'īgōlēk'tik) *a.* [Gk. *oligos*, few; *lektos*, chosen.] Selecting only a few; *appl.* insects visiting only a few different food-plants or flowers.

oligomerous (ōl'īgōm'ērūs) *a.* [Gk. *oligos*, few; *meros*, part.] Having one or more whorls with fewer members than the rest.

oligonephrous (ōl'īgōnēf'rūs) *a.* [Gk. *oligos*, few; *nephros*, kidney.] Having few Malpighian tubules; *appl.* certain insects; oligonephric.

oligophagous (öl'igöf'ägüs) *a.* [Gk. *oligos*, few; *phagein*, to eat.] Restricted to a single order, family, or genus of food-plants, *appl.* insects; *cf.* monophagous.

oligophyletic (öl'igöf'ilet'ik) *a.* [Gk. *oligos*, few; *phyle*, tribe.] Derived from a few ancestral forms; *cf.* monophyletic, polyphyletic.

oligopod (öl'igöpöð) *a.* [Gk. *oligos*, few; *pous*, foot.] Furnished with few feet or legs; campodeiform.

oligopyrene (öl'igöp'irēn') *a.* [Gk. *oligos*, few; *pyren*, fruit-stone.] *Appl.* certain spermatozoa with reduced number of chromosomes.

oligorhizous (öl'igör'izūs) *a.* [Gk. *oligos*, few; *rhiza*, root.] Having few roots; *appl.* certain marsh plants.

oligospermous (öl'igöspēr'mūs) *a.* [Gk. *oligos*, few; *sperma*, seed.] Bearing few seeds.

oligosporous (öl'igöspör'ūs) *a.* [Gk. *oligos*, few; *sporos*, seed.] Producing or having few spores.

oligostemonous (öl'igöstēm'önūs) *a.* [Gk. *oligos*, few; *stemon*, thread.] Having few stamens; oligandrous.

oligotaxy (öl'igötäk'si) *n.* [Gk. *oligos*, few; *taxis*, arrangement.] Diminution in number of whorls.

oligothermic (öl'igöthēr'mik) *a.* [Gk. *oligos*, little; *therme*, heat.] Tolerating relatively low temperatures.

oligotokous (öl'igöt'ökūs) *a.* [Gk. *oligos*, few; *tokos*, offspring.] Bearing few young.

oligotrophic (öl'igöt'röf'ik) *a.* [Gk. *oligos*, little; *trophe*, nourishment.] Providing, or *pert.*, inadequate nutrition; *opp.* eutrophic.

olistherozones (ölisthē'rözōnz) *n. plu.* [Gk. *olistheros*, sliding; *zone*, girdle.] Regions of incomplete splitting of chromatids, possibly due to nucleic acid deficiency; zones of differential reactivity.

oliva (öl'ivä), *n.* [L. *oliva*, olive.] A prominence on each side of anterior end of medulla just below pons; olive.

olivary (öl'iväri) *a.* [L. *oliva*, olive.]

Pert. the oliva, or olivary body; *pert.* certain nuclei of grey matter.

omasum (ömä'süm) *n.* [L. *omasum*, paunch.] The psalterium or third division of a ruminant's stomach; manyplies.

ombrophil (öm'b'röfil) *a.* [Gk. *ombros*, rain; *philein*, to love.] Adapted for rain, *appl.* plants, leaves.

omental (ömēn'täl) *a.* [L. *omentum*, caul.] *Pert.* omentum or omenta.

omentum (ömēn'tüm) *n.* [L. *omentum*, caul.] A fold of peritoneum either free or acting as connecting link between viscera.

ommachromes,—ommatochromes.

ommateum (ömä'tēüm) *n.* [Gk. *ommation*, little eye.] A compound eye.

ommatidium (öm'ätid'iüm) *n.* [Gk. *ommation*, little eye; *idion*, dim.] One of component elements of a compound eye.

ommatochromes (öm'ätökrömz) *n. plu.* [Gk. *omma*, eye; *chroma*, colour.] Eye-pigments.

ommatoids (öm'ätöidz) *n. plu.* [Gk. *omma*, eye; *eidos*, form.] Two or four light-coloured spots on last abdominal segment of Pedipalpi,—of disputed function.

ommatophore (öm'ätöföör) *n.* [Gk. *omma*, eye; *pherein*, to bear.] A movable process bearing an eye.

omnicolous (ömnik'ölüs) *a.* [L. *omnis*, all; *colere*, to dwell.] Capable of growing on different substrata; *appl.* lichens.

omnivorous (ömniv'örüs) *a.* [L. *omnis*, all; *vorare*, to devour.] Eating both animal and vegetable tissue.

omohyoid (ö'möhi'oid) *a.* [Gk. *omos*, shoulder; *hyoeides*, T-shaped.] *Pert.* shoulder and hyoid; *appl.* a muscle.

omoideum (ömoid'ēüm) *n.* [Gk. *omos*, shoulder; *eidos*, shape.] Pterygoid bone of bird's skull.

omosternum (ö'möstēr'nüm) *n.* [Gk. *omos*, shoulder; L. *sternum*, breast-bone.] Anterior element of amphibian sternum.

omphalic (õmfäl'ík) *a.* [Gk. *omphalos*, navel.] *Pert.* the umbilicus.

omphalodisc (õm'fälo'disk) *n.* [Gk. *omphalos*, navel; *diskos*, disc.] An apothecium with a small central protuberance, as in certain lichens.

omphalodium,—omphalodium.

omphalogenesis (õm'fälojën'esis) *n.* [Gk. *omphalos*, navel; *genesis*, descent.] Development of the umbilical vesicle and cord.

omphaloid (õm'fäloid) *a.* [Gk. *omphalos*, navel; *eidōs*, form.] Like a navel; having an umbilicus.

omphalodium (õm'fälo'id'ium) *n.* [Gk. *omphalos*, navel; *idion*, dim.] The scar at hilum of a seed, or hilum itself; omphalodium.

omphalomesenteric (õm'fälo'mēs'entēr'ík, -mēz-) *a.* [Gk. *omphalos*, navel; *mesenteron*, mid-gut.] *Pert.* umbilicus and mesentery; *appl.* arteries, veins, ducts.

oncosphere (õng'kõsfēr) *n.* [Gk. *ongkos*, hook; *sphaira*, globe.] Larval stage of tapeworm preceding cysticercus; prosclex or six-hooked embryo stage of Cestoidea.

ontocycle (õn'tõsi'kl) *n.* [Gk. *on*, being; *kyklos*, circle.] Evolution which in its later stages tends to produce forms exactly like those in the early stages.

ontogenesis (õn'tõjën'esis), **ontogeny** (õntõj'eni) *n.* [Gk. *on*, being; *genesis*, descent.] The history of development and growth of an individual; *cf.* phylogeny.

ontogenetic (õn'tõjënēt'ík) *a.* [Gk. *on*, being; *genesis*, descent.] *Pert.* ontogeny or development of an individual.

onychium (õnik'ium) *n.* [Gk. *onyx*, nail.] The layer below the nail; a pulvillus; a special false articulation to bear claws at end of tarsus in some spiders.

onychogenic (õnik'õjën'ík) *a.* [Gk. *onyx*, nail; *-genes*, producing.] Capable of producing a nail or nail-like substance; *appl.* material in nail matrix, and cells forming fibrous substance and cuticula of hairs.

onymy (õn'imí) *n.* [Gk. *onyma*, name.] Nomenclature; applying onyms or technical names.

ooangium,—archegonium.

ooapogamy (õ'õäpõg'ämi) *n.* [Gk. *oon*, egg; *apo*, away; *gamos*, marriage.] Diploid or somatic parthenogenesis.

ooblastema (õ'õblästē'mä) *n.* [Gk. *oon*, egg; *blastos*, bud.] The egg after fertilisation.

oocarp (õ'õkärp) *n.* [Gk. *oon*, egg; *karpos*, fruit.] Oospore.

oocyst (õ'õsist) *n.* [Gk. *oon*, egg; *kystis*, bladder.] Cyst formed round two conjugating gametes in Sporozoa; pseudonavicella.

oocyte (õ'õsit) *n.* [Gk. *oon*, egg; *kytos*, hollow.] An egg before formation of first polar body; in protozoa, a stage in 'female' conjugant before it prepares for fertilisation.

oocylin (õ'õs'tin) *n.* [Gk. *oon*, egg; *kytos*, hollow.] Substance extracted from spermatozoa which has a fertilising and agglutinating effect on ova of same species.

ooecium (õē'siūm) *n.* [Gk. *oon*, egg; *oikos*, house.] An ovicell, or brood pouch.

oogamete (õ'õgāmēt') *n.* [Gk. *oon*, egg; *gametes*, spouse.] An oosphere of Sporozoa.

oogamous (õõg'ämūs) *a.* [Gk. *oon*, egg; *gamos*, marriage.] Having sexually differentiated gametes; *pert.* oogamy.

oogamy (õõg'ämi) *n.* [Gk. *oon*, egg; *gamos*, marriage.] The union of a non-motile female gamete or egg-cell and a male gamete.

oogenesis (õ'õjën'esis) *n.* [Gk. *oon*, egg; *genesis*, descent.] Formation, development, and maturation of the female gamete or ovum.

oogloea (õ'õglē'ä) *n.* [Gk. *oon*, egg; *gloia*, glue.] Egg cement.

oogone,—oogonium.

oogonial (õ'õgõ'nial) *a.* [Gk. *oon*, egg; *gonos*, begetting.] *Pert.* the oogonium.

oogonium (õ'õgõ'nium) *n.* [Gk. *oon*, egg; *gonos*, begetting.] The

female reproductive organ in certain thallophytes; the mother egg-cell.
oid (ō'oid) *a.* [Gk. *oon*, egg; *eidōs*, form.] Egg-shaped; oval.

ookinesis (ō'ōkīnēs'is) *n.* [Gk. *oon*, egg; *kinein*, to move.] The karyokinetic stages of nucleus in maturation and fertilisation of eggs.

ookinete (ō'ōkīnēt') *n.* [Gk. *oon*, egg; *kinein*, to move.] The motile worm-shaped stage of the zygote in certain protozoa.

oolemma (ō'ōlē'm'ā) *n.* [Gk. *oon*, egg; *lemma*, husk.] The vitelline membrane of an egg; the zona pellucida.

oology (ōōl'ōji) *n.* [Gk. *oon*, egg; *logos*, discourse.] The study of eggs, particularly those of birds.

oophore (ō'ōfōr) *n.* [Gk. *oon*, egg; *pherein*, to bear.] Ovary; oophyte, *q.v.*

oophoridium (ō'ōfōrīd'ium) *n.* [Gk. *oon*, egg; *pherein*, to bear; *idion*, *dim.*] The megasporangium in certain plants.

oophoron,—ovary.

oophyte (ō'ōfit) *n.* [Gk. *oon*, egg; *phyton*, plant.] The sexual generation in such plants as liverworts; gametophyte.

ooplasm (ō'ōplāzm) *n.* [Gk. *oon*, egg; *plasma*, mould.] Cytoplasm or cell substance of an egg.

ooplast (ō'ōplāst) *n.* [Gk. *oon*, egg; *plastos*, formed.] An unfertilised ovum; oosphere.

oopod (ō'ōpōd) *n.* [Gk. *oon*, egg; *pous*, foot.] A component part of sting or ovipositor.

oophorin (ō'ōpōr'firin) *n.* [Gk. *oon*, egg; *porphyra*, purple.] A pigment of egg-shell of birds; haematoporphyrin.

oosome (ō'ōsōm) *n.* [Gk. *oon*, egg; *soma*, body.] Spherical body in egg supposed to pass later to germ-cells; germ track determinant or polar plasm.

oosperm (ō'ōspērm) *n.* [Gk. *oon*, egg; *sperma*, seed.] A fertilised egg.

oosphere (ō'ōsfēr) *n.* [Gk. *oon*, egg; *sphaira*, globe.] An egg before fertilisation; a female gamete.

oospore (ō'ōspōr) *n.* [Gk. *oon*, egg; *sporos*, seed.] The zygote or fertilised egg-cell; encysted zygote in certain protozoa.

oostegite (ō'ōstējīt) *n.* [Gk. *oon*, egg; *stega*, roof.] A plate-like structure on basal portion of thoracic limb in certain Crustacea, which helps to form a receptacle for the egg.

oostegopod (ō'ōstēj'ōpōd) *n.* [Gk. *oon*, egg; *stega*, roof; *pous*, foot.] A thoracic foot bearing an oostegite.

ootheca (ō'ōthē'ka) *n.* [Gk. *oon*, egg; *theke*, case.] A sporangium; an egg-case, as in insects.

ootid (ō'ōtid) *n.* [Gk. *oon*, egg; *idion*, *dim.*] On analogy of spermatid, one of four parts into which egg divides at maturation.

ootocoid (ō'ōtōkoid) *a.* [Gk. *oon*, egg; *tokos*, delivery; *eidōs*, form.] Giving birth to young at a very early stage, and then carrying them in a marsupium.

ootocous (ōōt'ōkūs) *a.* [Gk. *oon*, egg; *tokos*, delivery.] Egg-laying.

ootype (ō'ōtip) *n.* [Gk. *oon*, egg; *typos*, mould.] Part of oviduct receiving ducts from shell- and yolk-glands, in flat-worms.

ooze (ooz) *n.* [A.S. *wase*, mud.] A deposit containing skeletal parts of minute organisms and covering large areas of ocean bottom; soft mud.

oozoite (ō'ōzō'it) *n.* [Gk. *oon*, egg; *zoon*, animal.] Asexual parent, in tunicates.

oozooid (ō'ōzō'oid) *n.* [Gk. *oon*, egg; *zoon*, animal; *eidōs*, form.] Any individual developed from an egg.

opercle,—operculum.

opercula,—*plu.* of operculum.

opercular (ōpēr'kulār) *n.* [L. *operculum*, lid.] Posterior bone of fish operculum. *a. Pert.* operculum; *appl.* dehiscing antheridial cell, as in ferns.

operculate (ōpēr'kulāt) *a.* [L. *operculum*, lid.] Having a lid, as the capsule of mosses; calyptrate; having a covering for gills, as most fishes; operculiferous.

operculiform (öpër'kūlifõrm') *a.* [L. *operculum*, lid; *forma*, shape.] Lid-like.

operculigenous (öpër'kūlij'ënüs) *a.* [L. *operculum*, lid; Gk. *gennaein*, to produce.] Producing or forming a lid.

operculum (öpër'kūlüm) *n.* [L. *operculum*, lid.] A lid or covering flap, as at apex of an ascus, or of capsules of mosses; sepaline and petaline bud-cover, shed at flowering as in Eucalyptus; a convolution covering island of Reil; gill-cover of fishes; flap covering of nostrils and ears in some birds; lid-like structure or epiphragm closing mouth of shell in some gastropods; movable plates in shell of barnacle; first pair of abdominal appendages in Limulus and scorpions; small plate covering opening of a lung book in spiders; egg-cap, opened by emerging insect; chitinous lid of orifice in Polyzoa.

opesia (öpë'siä) *n.* [Gk. *ope*, hole.] Membranous aperture below orifice in Polyzoa.

ophiocephalous (öf'iókëf'älüs, -sëf-) *a.* [Gk. *ophis*, serpent; *kephale*, head.] *Appl.* larval pedicellariae of echinoids.

ophiopluteus (öf'ióploot'ëüs) *n.* [Gk. *ophis*, serpent; L. *pluteus*, shed.] The pluteus larva of Ophiuroidea.

ophiurid (öfiü'roid) *a.* [Gk. *ophis*, serpent; *oura*, tail; *eidos*, form.] Resembling or *pert.* a brittle-star; *appl.* cells: multiradiate or spiculate sclereids, astrosclereids.

ophryon (öf'riön, öfri'ön) *n.* [Gk. *ophrys*, brow.] Point of junction of median line of face with a line across narrowest part of forehead.

ophthalmic (öfthäl'mik) *a.* [Gk. *ophthalmos*, eye.] *Pert.* eye; *appl.* a division of trigeminal nerve; *appl.* an artery arising from internal carotid; *appl.* inferior and superior veins of orbit.

ophthalmophore,—ommatophore, *q.v.*

ophthalmopod (öfthäl'möpöd) *n.* [Gk. *ophthalmos*, eye; *pous*, foot.]

Eye-stalk, as of decapod crustaceans.

opisthaptor (öpistháp'tör) *n.* [Gk. *opisthe*, behind; *haptain*, to fasten.] Posterior sucker or disc in trematodes.

opisthial (öpis'thiäl) *a.* [Gk. *opisthe*, behind.] Posterior; *appl.* pore or stomatal margin.

opisthion (öpis'thiön) *n.* [Gk. *opisthe*, behind.] Median point of posterior margin of foramen magnum.

opisthocelous (öpis'thösë'lüs) *a.* [Gk. *opisthe*, behind; *koilos*, hollow.] Having the centrum concave behind; *appl.* vertebrae.

opisthocont,—opisthokont.

opisthodontic (öpis'thödët'ik) *a.* [Gk. *opisthe*, behind; *detos*, bound.] Lying posterior to beak or umbo; *appl.* ligaments in some bivalve shells; *cf.* parivincular.

opisthogenesis (öpis'thöjën'ésis) *n.* [Gk. *opisthe*, behind; *genesis*, origin.] Development of segments or markings proceeding forward from the posterior end of the body.

opisthoglossal (öpis'thöglös'al) *a.* [Gk. *opisthe*, behind; *glossa*, tongue.] Having tongue fixed in front, free behind.

opisthognathous (öpisthög'näthüs) *a.* [Gk. *opisthe*, behind; *gnathos*, jaw.] Having retreating jaws.

opisthogeneate (öpis'thögön'ëät) *a.* [Gk. *opisthe*, behind; *gone*, generation.] Having the genital aperture at hind end of body, as Chilopoda. *Opp.* progonate.

opisthokont (öpis'thökönt) *a.* [Gk. *opisthe*, behind; *kontos*, punting-pole.] With flagellum or flagella at posterior end.

opisthonephros (öpis'thönëf'rös) *n.* [Gk. *opisthe*, behind; *nephros*, kidney.] A renal organ of embryo, consisting of meso- and metanephric series of tubules.

opisthosoma (öpis'thösö'mä) *n.* [Gk. *opisthe*, behind; *soma*, body.] Posterior body region, as in Trilobita and Arachnoidea.

opisthotic (öp'isthō'tik) *a.* [Gk. *opisthe*, behind; *ous*, ear.] *Pert.* inferior posterior bony element of otic capsule.

opisthure (öpisthūr) *n.* [Gk. *opisthe*, behind; *oura*, tail.] The projecting tip of vertebral column.

opponens (öpō'nēnz) *a.* [L. *opponere*, to oppose.] *Appl.* muscles which cause digits to approach one another.

opposite (öp'ōzīt) *a.* [L. *opponere*, to oppose.] *Appl.* leaves which are opposite one another at same level on stem.

opsigenes (öpsij'ēnēz) *n. plu.* [Gk. *opse*, late; *-genes*, born.] Structures formed or becoming functional long after birth.

opsonic (öpsōn'ik) *a.* [Gk. *opsonēin*, to cater.] *Pert.*, or affected by, opsonin; bacteriotropic.

opsonin (öp'sōnīn) *n.* [Gk. *opsonēin*, to cater.] A constituent of blood which helps phagocytes to destroy invading bacteria; bacteriotropin.

optic (öp'tik) *a.* [Gk. *opsis*, sight.] *Pert.* vision.

optic axis,—line between central points of anterior and posterior curvature or poles of eye-ball.

optic bulb,—peripheral expansion of the embryonic optic vesicle, later invaginated to form the optic cup which gives rise to the retina.

optic disc,—region of entrance of optic nerve in retina; blind spot.

optic lobes,—part of brain intimately connected with optic tracts; corpora bigemina, *q.v.*

optic nerves,—second pair of cranial nerves.

optic rod,—rhabdome, *q.v.*

optociliary (öp'tikōsil'iāri) *a.* [Gk. *opsis*, sight; L. *cilia*, eyelashes.] *Pert.* optic and ciliary nerves.

opticon (öp'tikōn) *n.* [Gk. *opsis*, sight.] Inner zone of optic lobes of insects.

opticopillary (öp'tiköpū'pilāri) *a.* [Gk. *opsis*, sight; L. *pupilla*, pupil of eye.] *Pert.* optic nerve and pupil.

optimum (öp'timūm) *n.* [L. *optimus*, best.] The most suitable degree of

environmental factor for full development of organism concerned; point at which best response can be obtained.

optoblast (öp'töbläst) *n.* [Gk. *opsis*, sight; *blastos*, bud.] Nerve-cell of ganglionic layer of retina.

optocoel (öp'tōsēl) *n.* [Gk. *opsis*, sight; *koilos*, hollow.] The cavity in optic lobes of brain.

optogram (öp'tögrām) *n.* [Gk. *opsis*, sight; *graphein*, to write.] The image impressed on retina by action of light on visual purple.

ora (ō'ra) *n.* [L. *ora*, boundary.] A margin, as *ora serrata*: wavy border of retina, where nervous elements cease. *n. plu.* [L. *os*, mouth.] Mouths.

orad (ō'rād) *a.* [L. *os*, mouth; *ad*, to.] Towards the mouth or mouth region.

oral (ō'rāl) *a.* [L. *os*, mouth.] *Pert.* or belonging to mouth; on side on which mouth lies, *opp.* aboral.

orbicular (örbik'ulār) *a.* [L. *orbis*, orb.] Round or shield-shaped with petiole attached to centre, *appl.* leaves; surrounding, *appl.* eye muscles; annular, *appl.* ligament of head of radius.

orbicularis (örbik'ulār'is) *a.* [L. *orbis*, orb.] *Appl.* a muscle whose fibres surround an opening.

orbiculate (örbik'ulāt) *a.* [L. *orbiculatus*, rounded.] Nearly circular in outline; *appl.* leaves; *appl.* pileus.

orbit (ör'bīt) *n.* [L. *orbita*, circuit.] Bony cavity in which eye is situated; skin round eye of bird; hollow in arthropod cephalothorax where eye-stalk arises; conspicuous zone, or rim, of head-capsule, around compound eye of insects.

orbital (ör'bītāl) *a.* [L. *orbita*, circuit.] *Pert.* the orbit.

orbitomalar (ör'bītōmālār) *a.* [L. *orbita*, circuit; *mala*, cheek.] *Pert.* orbit and malar bone.

orbitonasal (ör'bītōnā'zāl) *a.* [L. *orbita*, circuit; *nasus*, nose.] *Pert.* orbit and nasal portions of adjoining bones.

orbitosphenoid (ôr'bîtôs'fē'noid) *a.* [L. *orbita*, circuit; Gk. *sphen*, wedge; *eidos*, form.] *Pert.* paired cranial elements lying between presphenoid and frontal.

orchitic (ôr'kit'ík) *a.* [Gk. *orchis*, testis.] Testicular; *pert.* testicle.

orculaeform (ôr'kûlîfôrm) *a.* [L.L. *orcula*, *dim.* of L. *orca*, cask; *forma*, shape.] Cask-shaped; *appl.* spores of certain lichens.

order (ôr'dër) *n.* [L. *ordo*, order.] In classification, group of organisms closely allied, ranking between family and class.

ordinate (ôr'dînât) *a.* [L. *ordinatus*, arranged.] Having markings arranged in rows.

ordinatopunctate (ôr'dînâ'töpûng'-ktât) *a.* [L. *ordinatus*, arranged; *punctum*, prick.] Indicating serial presence of dots, etc.

Ordovician (ôr'dôvîsh'îân) *a.* [L. *Ordovices*, tribe of North Wales.] *Pert.* or *appl.* period of Palaeozoic era between Cambrian and Silurian.

organ (ôr'gân) *n.* [Gk. *organon*, implement.] Any part or structure of an organism adapted for a special function or functions.

organ of Corti, or organon spirale,—Corti's organ, *q.v.*

organ of Valenciennes,—paired lamellated organ in female nautilus.

organellae (ôrgănêl'ê) *n. plu.* [Gk. *organon*, instrument.] The various parts of a cell; organoids.

organic (ôrgăn'ík) *a.* [Gk. *organon*, instrument.] *Pert.*, derived from, or showing the peculiarities of a living organism; *pert.* carbon compounds.

organicism (ôrgăn'îsîzm) *n.* [Gk. *organon*, instrument.] The co-operation or competition of cells, tissues, and organs and their reciprocal modifying action; the integration of an organism as a unit; the interblending of events within the organism.

organific (ôr'gânîf'ík) *a.* [L. *organum*, instrument; *facere*, to make.] Producing an organism; making an organised structure.

organisation centre,—organiser.

organised (ôr'gănîzd) *a.* [Gk. *organon*, instrument.] Exhibiting characteristics of, or behaving like an organism; *appl.* growth resembling normal growth, in tissue culture, *opp.* unorganised growth of cells migrating from cut tissue.

organiser (ôr'gănîzër) *n.* [Gk. *organos*, fashioning.] A part of an embryo which provides a stimulus for the direction of morphological development and differentiation of other parts; *cf.* evocator.

organism (ôr'gănîzm) *n.* [Gk. *organon*, instrument.] Any living animal or plant; anything capable of carrying on life processes.

organismic (ôr'gănîs'mîk) *a.* [Gk. *organon*, instrument.] *Appl.*, or *pert.*, factors or processes involved in integrating and maintaining individuality of an organism.

organogen (ôr'gănôjën) *n.* [Gk. *organon*, instrument; *gennaîn*, to produce.] Any of the elements C, H, O, N, also S, P, Cl.

organogenesis (ôr'gănôjën'êsis) *n.* [Gk. *organon*, instrument; *genesis*, descent.] Formation and development of organs; organogeny.

organography (ôr'gănôg'râfî) *n.* [Gk. *organon*, instrument; *graphein*, to write.] The description of organs in a living organism.

organoid (ôr'gănoid) *n.* [Gk. *organon*, instrument; *eidos*, form.] A formed morphological element in protoplasm; cell organ. *Opp.* metaplasm.

organoleptic (ôr'gănôlêp'tîk) *a.* [Gk. *organon*, instrument; *lambaneîn*, to take hold of.] Capable of receiving, or of making, an impression.

organology (ôr'gănôl'ôji) *n.* [Gk. *organon*, instrument; *logos*, discourse.] The study of organs of plants and animals.

organon spirale,—Corti's organ.

organonomy (ôr'gănôn'ômî) *n.* [Gk. *organon*, instrument; *nomos*, law.] The laws that deal with life or living organisms.

organonymy (ôr'gânôn'imî) *n.* [Gk. *organon*, instrument; *onyma*, name.] The nomenclature of organs.

organophyly (ôr'gânôfî'li) *n.* [Gk. *organon*, instrument; *phyle*, tribe.] The phylogeny of organs.

organoplastic (ôr'gânôplás'tik) *a.* [Gk. *organon*, organ; *plassein*, to form.] Capable of forming, or producing, an organ; *pert.* formation of organs.

organotrophic (ôr'gânôtrôf'ik) *a.* [Gk. *organon*, instrument; *trephein*, to nourish.] *Pert.* formation and nourishment of organs.

organotypic (ôr'gânótîp'ik) *a.* [Gk. *organon*, instrument; *typos*, pattern.] *Appl.* growth under somatic control; organised. *Opp.* histiotypic.

organule (ôr'gânûl) *n.* [L. *organum*, instrument.] A cell or element of an organism, or of an organ.

orgasm (ôr'gâzm) *n.* [Gk. *organ*, to swell.] Immoderate excitement; turbulence of an organ.

Oriental (ôriën'täl) *a.* [L. *orientalis*, eastern.] *Appl.* or *pert.* a zoogeographical region including India, Ceylon, Indo-China to Malaya and East Indies eastwards to Roma.

orientation (ô'riëntä'shün) *n.* [L. *oriens*, rising of sun.] Alteration in position shown by organs or organisms under stimulus; relative disposition; arrangement of chromosomes with centromeres lying axially in relation to spindle.

orifice (ôr'ifis) *n.* [L. *os*, mouth; *facere*, to make.] Mouth or aperture; opening of a tube, duct, etc.; orificium.

original (ôrij'inäl) *a.* [L. *origo*, origin.] *Pert.* beginning; *appl.* wild species from which cultivated have been derived.

ornis (ôr'nîs) *n.* [Gk. *ornis*, bird.] Bird fauna of a region; avifauna.

ornithic (ôr'nith'ik) *a.* [Gk. *ornis*, bird.] *Pert.* birds.

ornithichnite (ôr'nith'iknît) *n.* [Gk. *ornis*, bird; *ichnos*, track.] The

fossil track or foot-print of a bird.

ornithine (ôr'nithin) *n.* [Gk. *ornis*, bird.] Diamino-valeric acid, found in excreta of birds; $C_5H_{12}O_2N_2$.

ornithocopros (ôr'nithôkôp'rôs) *n.* [Gk. *ornis*, bird; *kopros*, dung.] The dung of birds.

Ornithogaea (ôr'nithôjē'ä) *n.* [Gk. *ornis*, bird; *gaia*, earth.] The zoogeographical region which includes New Zealand and Polynesia.

ornithology (ôr'nithôl'ôji) *n.* [Gk. *ornis*, bird; *logos*, discourse.] The study of birds.

ornithophilous (ôr'nithôf'ilüs) *a.* [Gk. *ornis*, bird; *philein*, to love.] Bird-loving; *appl.* flowers pollinated through agency of birds.

oroanal (ô'rôä'näl) *a.* [L. *os*, mouth; *anus*, anus.] Serving as mouth and anus.

oronasal (ô'rônä'zäl) *a.* [L. *os*, mouth; *nasus*, nose.] *Pert.* or designating groove connecting mouth and nose.

oropharynx (ô'rôfär'ingks) *n.* [L. *os*, mouth; *pharynx*, gullet.] The cavity of the mouth and pharynx; the space between the glossopalatine and pharyngopalatine arches or anterior and posterior pillars of the fauces. *Opp.* nasopharynx.

orrhoid (ôr'oid) *a.* [Gk. *orrhos*, serum; *eidos*, form.] Serous.

ortet (ôr'tët) *n.* [L. *ortus*, origin.] The original single ancestor of a clone; *cf.* ramet.

orthal (ôr'thäl) *a.* [Gk. *orthos*, straight.] Straight up and down; *appl.* jaw movement. *Cf.* palinal, proral.

orthaxial (ôrth'äksäl) *a.* [Gk. *orthos*, straight; L. *axis*, axle.] With a straight axis, or vertebral axis; *appl.* caudal fin.

orthochromatic (ôr'thôkrômät'ik) *a.* [Gk. *orthos*, straight; *chroma*, colour.] *Appl.* large oval erythrocytes with nuclear strands passing out to nuclear membrane.

orthodentine (ôr'thôdên'tin) *n.* [Gk. *orthos*, straight; L. *dens*, tooth.] Dentine pierced by numerous more

- or less parallel dentinal tubules; inner layer of circumpulpar dentine and outer layer of pallial dentine; *cf.* osteodentine.
- orthoenteric** (ôr'thōëntēr'ik) *a.* [Gk. *orthos*, straight; *enteron*, intestine.] Having alimentary canal along internal ventral body surface; *appl.* certain Tunicata.
- orthogamy**,—autogamy.
- orthogenesis** (ôr'thōjēn'ēsīs) *n.* [Gk. *orthos*, straight; *genesis*, descent.] Evolution in a definite direction; determinate evolution, through variations which, irrespective of natural selection or external forces, gradually produce a new and distinct type.
- orthokinesis** (ôr'thōkīnē'sīs) *n.* [Gk. *orthos*, straight; *genesis*, movement.] Variation in velocity causing dispersal or aggregation of animals as a result of different stimuli; variation in linear velocity.
- orthophyte** (ôr'thōfit) *n.* [Gk. *orthos*, straight; *phyton*, plant.] The plant in the interval between megaspore and megaspore production; sporophyte and gametophyte.
- orthoploid** (ôr'thōploid) *a.* [Gk. *orthos*, straight; *haploos*, onefold; *eidos*, form.] With even chromosome number; polyploid with complete and balanced genomes.
- orthopterous** (ôr'thōp'tērūs) *a.* [Gk. *orthos*, straight; *pteron*, wing.] Having straight folded posterior wings, as grasshoppers.
- orthoradial** (ôr'thōrā'diāl) *a.* [Gk. *orthos*, straight; *L. radius*, ray.] *Appl.* cleavage where divisions are symmetrically disposed round egg-axis.
- orthoselection** (ôr'thōsēlēk'shūn) *n.* [Gk. *orthos*, straight; *L. selectio*, choice.] Selection conducive to advance in adaptation.
- orthosomatic** (ôr'thōsōmāt'ik) *a.* [Gk. *orthos*, straight; *somatikos*, of the body.] Having a straight body; *appl.* certain larval insects.
- orthospermous** (ôr'thōspēr'mūs) *a.* [Gk. *orthos*, straight; *sperma*, seed.] With straight seeds.
- orthospiral** (ôr'thōspi'rāl) *a.* [Gk. *orthos*, straight; *speira*, coil.] *Appl.* coiling of parallel chromatids, interlocked at each twist; plectonemic. *Opp.* anorthospiral, paranemic.
- orthostichous** (ôr'thōs'tikūs) *a.* [Gk. *orthos*, straight; *stichos*, row.] Arranged in a vertical row, *appl.* leaves; *appl.* fin skeleton when peripheral somactids are parallel.
- orthostichy** (ôr'thōs'tikī) *n.* [Gk. *orthos*, straight; *stichos*, row.] Vertical line on which a row of leaves or scales is found; arrangement of leaves or scales in this row.
- orthotriaene** (ôr'thōtrī'ēn) *n.* [Gk. *orthos*, straight; *triaina*, trident.] A triaene with cladi directed outwards at right angles to shaft.
- orthotropical**,—orthotropous.
- orthotropic** (ôr'thōtrōp'ik) *a.* [Gk. *orthos*, straight; *trope*, turn.] Tending to be orientated in line of action of stimulus; growing vertically, as stem or root. *Opp.* plagiotropic.
- orthotropism** (ôr'thōt'rōpīzm) *n.* [Gk. *orthos*, straight; *trope*, turn.] Growth in a vertical line; condition of an orthotropic plant organ.
- orthotropous** (ôr'thōt'rōpūs) *a.* [Gk. *orthos*, straight; *trope*, turn.] Having chalaza, hilum, and micropyle in a straight line; *appl.* ovules; atropous.
- orthotype** (ôr'thōtīp) *n.* [Gk. *orthos*, straight; *typos*, pattern.] Genotype originally designated.
- oryctics** (ōrik'tiks) *n.* [Gk. *oryktos*, dug out.] The study of fossils; oryctology, palaeontology.
- os** (ōs) *n.*, **ora** (ō'rā) *plu.* [L. *os*, mouth.] A mouth; mouths.
- os** (ōs) *n.*, **ossa** (ōs'a) *plu.* [L. *os*, bone.] A bone; bones.
- oscitate** (ōs'sitāt) *v.* [L. *oscitare*, to yawn.] To yawn; to gape.
- oscula**,—*plu.* of osculum.
- osculant** (ōs'kūlant) *a.* [L. *osculans*, kissing.] Closely adherent; intermediate in character between two groups, genera, or species.

oscular (ös'külär) *a.* [L. *osculum*, small mouth.] *Pert.* an osculum.

osculate (ös'külät) *v.* [L. *osculare*, to kiss.] To have characters intermediate between two groups.

oscule,—osculum.

osculiferous (ös'külif'ërüs) *a.* [L. *osculum*, small mouth; *ferre*, to bear.] Having oscula.

osculum (ös'külüm) *n.* [L. *osculum*, small mouth.] An excurrent opening in a sponge.

osmeterium (ös'mëtë'rïüm) *n.* [Gk. *osme*, smell; *terein*, to keep.] A forked protrusible organ borne on first thoracic segment of larva of some butterflies, emitting a smell.

osmics (ös'mïks) *n.* [Gk. *osme*, smell.] The study of olfactory organs and the sense of smell, and of odoriferous organs and substances.

osmiophil (ös'miöfil) *a.* [*Osmium*, from Gk. *osme*, smell; *philein*, to love.] Staining readily with osmic acid, as olein in tissues, and as externum of Golgi bodies; osmiophilic.

osmoreceptors (ös'mörësëp'törz) *n. plu.* [Gk. *osmos*, impulse; L. *recipere*, to receive.] Cells reacting to osmotic changes in blood, and, via parasympathetic fibres innervating the posterior lobe of pituitary gland, controlling secretion of the antidiuretic hormone.

osmosis (ösmö'sïs) *n.* [Gk. *osmos*, impulse.] A diffusion which takes place between two miscible fluids through a permeable membrane.

osmosium (ösmö'siüm) *n.* [Gk. *osmos*, impulse.] The part of nematode intestine connecting with demanian vessels.

osmotaxis (ös'mötäk'sïs) *n.* [Gk. *osmos*, impulse; *taxis*, arrangement.] Locomotory response to changes in osmotic pressure; tonotaxis.

osmotic (ösmöt'ik) *a.* [Gk. *osmos*, impulse.] *Pert.* osmosis.

osmyl (ös'mïl) *n.* [Gk. *osme*, smell; *hyle*, matter.] Any odorous substance.

osphradium (ösfrä'diüm) *n.* [Gk.

osphradion, strong scent.] A chemical sense organ associated with visceral ganglia in molluscs.

osphresiology (ös'frësiöl'öji) *n.* [Gk. *osphresis*, sense of smell; *logos*, discourse.] The study of the sense of smell.

osphresis (ös'frësis) *n.* [Gk. *osphresis*, sense of smell.] The sense of smell.

ossa,—bones, *plu.* of *os*.

ossa triquetra,—Wormian bones.

ossein (ös'ëin) *n.* [L. *osseus*, bony.] The most abundant organic constituent of bone; bone collagen.

osseous (ös'ëüs) *a.* [L. *osseus*, bony.] Composed of or resembling bone.

osseous labyrinth,—vestibule, semicircular canals, and cochlea, in petrous part of temporal bone and containing the membranous labyrinth.

ossicle (ös'ïkl) *n.* [*Dim.* of L. *os*, bone.] Any small bone; one of those in ear, or in sclerotic; one of those in gastric mill of Crustacea; a plate of skeleton of echinoderms.

ossicone (ös'ïkôn) *n.* [L. *os*, bone; *conus*, cone.] The os cornu or horn core of ruminants.

ossicular (ösik'ülär) *a.* [*Dim.* of L. *os*, bone.] *Pert.* ossicles.

ossiculate,—having ossicles.

ossiculum (ösik'ülüm) *n.* [*Dim.* of L. *os*, bone.] An ossicle; a lithodesma; a partly calcified byssus; a pyrene.

ossification (ös'ïfikä'shün) *n.* [L. *os*, bone; *facere*, to make.] The formation of bone; replacement of cartilage by bone.

ossify (ös'ïfi) *v.* [L. *os*, bone; *feri*, to become.] To change to bone.

osteoblast (ös'tëöbläst) *n.* [Gk. *osteon*, bone; *blastos*, bud.] A bone-forming cell.

osteochondral (ös'tëökôn'dral) *a.* [Gk. *osteon*, bone; *chondros*, cartilage.] *Pert.* bone and cartilage; osteochondrous, consisting of bone and cartilage.

osteoclast (ös'tëökläst) *n.* [Gk. *osteon*, bone; *klan*, to break.]

A cell which absorbs or breaks up bony tissue or cartilage matrix.
osteocomma (ös'tëököm'ä) *n.* [Gk. *osteon*, bone; *komma*, piece.] A segment of the vertebral skeleton; osteomere.

osteocranium (ös'tëökrä'nium) *n.* [Gk. *osteon*, bone; *kranion*, skull.] Bony skull as distinguished from cartilaginous or chondrocranium.

osteocyte (ös'tëösit) *n.* [Gk. *osteon*, bone; *kytos*, hollow.] A bone cell, developed from osteoblast.

osteodentine (ös'tëödën'tin) *n.* [Gk. *osteon*, bone; *L. dens*, tooth.] A variety of dentine which closely approaches bone in structure.

osteodermis (ös'tëöder'mis) *n.* [Gk. *osteon*, bone; *derma*, skin.] A dermis which is more or less ossified; a bony dermal plate.

osteogen (ös'tëöjën') *n.* [Gk. *osteon*, bone; *gennaein*, to produce.] The tissue which alters and forms bone.

osteogenesis (ös'tëöjën'ësis) *n.* [Gk. *osteon*, bone; *genesis*, descent.] Bone formation.

osteogenetic (ös'tëöjënët'ik), **osteogenic** (ös'tëöjën'ik) *a.* [Gk. *osteon*, bone; *genesis*, descent.] *Pert.* or causing formation of bone.

osteoid (ös'tëoid) *a.* [Gk. *osteon*, bone; *eidos*, form.] Bone-like.

osteology (ös'tëöl'öji) *n.* [Gk. *osteon*, bone; *logos*, discourse.] That part of zoology dealing with structure, nature, and development of bones.

osteomere (ös'tëömër) *n.* [Gk. *osteon*, bone; *meros*, part.] A segment of the vertebral skeleton; osteocomma.

osteone,—Haversian system, *q.v.*

osteoplastic (ös'tëöpläs'tik) *a.* [Gk. *osteon*, bone; *plastos*, moulded.] Producing bone; *appl.* certain cells.

osteosclereid (ös'tëösklë'rëid) *n.* [Gk. *osteon*, bone; *skleros*, hard; *eidos*, shape.] A sclereid with both ends knobbed.

osteoscut (ös'tëösküt) *n.* [Gk. *osteon*, bone; *L. scutum*, shield.] A bony external scale or plate, as in labyrinthodonts and armadillos.

ostia,—*plu.* of ostium.

ostial,—of or *pert.* ostia or an ostium.

ostiate (ös'tiät) *a.* [L. *ostium*, door.] Furnished with ostia.

ostiolar (ös'tiölar) *a.* [L. *ostiolum*, little door.] *Pert.* an ostiole.

ostiolate (ös'tiölät) *a.* [L. *ostiolum*, little door.] Provided with ostioles.

ostiole (ös'tiöl) *n.* [L. *ostiolum*, little door.] A small opening, as of con-
ceptacle, perithecium, stoma, anther sac, etc.; inhalant aperture of sponge.

ostium (ös'tiüm) *n.* [L. *ostium*, door.] Any mouth-like opening; opening of Fallopian tube; opening between atria of foetal heart; opening in arthropod heart by which blood enters from pericardium; opening from flagellate canal into paragastric cavity in sponges. *Plu.* ostia.

otic (ö'tik) *a.* [Gk. *ous*, ear.] *Pert.* ear; *pert.* region of auditory capsule; *appl.* ganglion on mandibular nerve.

otidium (ötid'iüm) *n.* [Gk. *ous*, ear; *idion*, *dim.*] The otocyst of a mollusc.

otoconium (ö'tökö'nium) *n.* [Gk. *ous*, ear; *konia*, sand.] One of minute crystals of calcium carbonate lying in membranous labyrinth of inner ear; ear dust; otoconite.

otocrypt (ö'tökript) *n.* [Gk. *ous*, ear; *kryptos*, hidden.] An open invagination of integument of foot in certain molluscs.

otocyst (ö'tösisit) *n.* [Gk. *ous*, ear; *kystis*, bladder.] A sac containing fluid and otoliths, supposed to be auditory; embryonic auditory vesicle.

otolith (ö'töolith) *n.* [Gk. *ous*, ear; *lithos*, stone.] Calcareous particle or plate-like structure found in auditory organ of many animals.

oto-occipital (ö'tööksip'itäl) *n.* [Gk. *ous*, ear; *L. occiput*, back of head.] Bone formed by fusion of opisthotic with exoccipital.

otoporpae (ö'töpör'pē) *n. plu.* [Gk. *ous*, ear; *porpe*, brooch.] Stripes of cnidoblasts on exumbrella of Hydromedusae.

otosalpinx (ō'tōsāl'pingks) *n.* [Gk. *ous*, ear; *salpingx*, trumpet.] Tuba auditiva or Eustachian tube.

otostapes (ō'tōstā'pēz) *n.* [Gk. *ous*, ear; L.L. *stapes*, stirrup.] Otic portion of columellar primordium which in adult may give rise to stapes and part of columella

osteon (ōtōs'tēōn) *n.* [Gk. *ous*, ear; *osteon*, bone.] An auditory ossicle.

ova,—*plu.* of ovum.

oval (ō'vāl) *a.* [L. *ovum*, egg.] Egg-shaped; *pert.* an egg.

ovalbumin (ō'vālbū'min) *n.* [L. *ovum*, egg; *albumen*, white of egg.] The chief protein constituent of white of egg.

ovarian (ōvā'riān) *a.* [L. *ovarium*, ovary.] *Pert.* an ovary.

ovariole (ōvā'riōl) *n.* [L. *ovarium*, ovary.] Egg tube of insect ovary.

ovariotestis (ōvār'iōtēs'tis) *n.* [L. *ovarium*, ovary; *testis*, testicle.] Generative organ when both male and female elements are formed, as in case of sex reversal; *cf.* ovotestis.

ovarium (ōvā'riūm) *n.* [L. *ovarium*, ovary.] An ovary.

ovary (ō'vāri) *n.* [L. *ovarium*, ovary.] The essential female reproductive gland; an enlarged portion of pistil or gynoceum, containing ova.

ovate (ō'vāt) *a.* [L. *ovum*, egg.] Egg-shaped; and attached by the broader end, *appl.* leaves.

ovate-acuminate,—*appl.* an ovate lamina with very sharp point; *appl.* leaves.

ovate-ellipsoidal,—ovate, approaching ellipsoid; *appl.* leaves.

ovate-lanceolate,—having a form of lamina intermediate between ovate and lanceolate.

ovate-oblong,—having an oblong lamina with one end narrower.

ovejector (ō'vējēk'tōr) *n.* [L. *ovum*, egg; *ejectum*, thrown out.] The muscular terminal part of female genital tract considered as a functional unit, in nematodes.

ovenchyma (ōvēng'kimā) *n.* [L. *ovum*, egg; Gk. *enchyma*, infusion.] A connective tissue with ovoid cells.

ovicapsule (ō'vikāp'sūl) *n.* [L. *ovum*, egg; *capsula*, small box.] An egg-case; ootheca.

ovicell (ō'visēl) *n.* [L. *ovum*, egg; *cella*, cell.] A dilatation of an oocidium, serving as a brood pouch.

oviducal (ō'vidūkāl) *a.* [L. *ovum*, egg; *ducere*, to lead.] *Pert.* oviduct.

oviduct (ō'vidūkt) *n.* [L. *ovum*, egg; *ducere*, to lead.] The tube which carries eggs from ovary to exterior; Müllerian duct.

oviferous (ōvif'ērūs) *a.* [L. *ovum*, egg; *ferre*, to carry.] Serving to carry eggs; ovigerous.

oviform (ō'vifōrm) *a.* [L. *ovum*, egg; *forma*, shape.] Egg-shaped; oval.

oviger (ō'vijēr) *n.* [L. *ovum*, egg; *gerere*, to bear.] Egg-carrying leg of Pycnogonida.

ovigerous,—oviferous.

oviparity (ō'vipār'iti) *n.* [L. *ovum*, egg; *parere*, to bring forth.] Condition of being oviparous.

oviparous (ōvip'ārūs) *a.* [L. *ovum*, egg; *parere*, to bring forth.] Producing eggs; egg-laying; *cf.* viviparous; ovoviviparous.

oviposit (ō'vipōz'it) *v.* [L. *ovum*, egg; *ponere*, to place.] To lay eggs; *appl.* insects.

ovipositor (ō'vipōz'itōr) *n.* [L. *ovum*, egg; *ponere*, to place.] A specialised structure in insects for placing eggs in a suitable place; a tubular extension of genital orifice in fishes.

ovisac (ō'visāk) *n.* [L. *ovum*, egg; *saccus*, bag.] An egg-capsule or receptacle.

oviscapte (ō'viskāpt) *n.* [L. *ovum*, egg; F. *capter*, from L. *captare*, to conduct.] Ovipositor.

ovism (ō'vizm) *n.* [L. *ovum*, egg.] Theory held by ovists that the egg contained the germ with germs of all future generations within it.

ovocentre (ō'vōsēn'tēr) *n.* [L. *ovum*, egg; *centrum*, centre.] The egg-centrosome during fertilisation.

ovocyst, **ovocyte**, **ovogenesis**,—oocyst, oocyte, oogenesis, *q.v.*

ovoid (ō'void) *a.* [L. *ovum*, egg; Gk. *eidos*, form.] Somewhat egg-shaped.

ovomucoid (ō'vōmū'koid) *n.* [L. *ovum*, egg; *mucus*, mucus; Gk. *eidos*, form.] A mucoid of eggs.

ovoplasm,—*ooplasm*.

ovotestis (ō'vōtēs'tis) *n.* [L. *ovum*, egg; *testis*, testicle.] The hermaphrodite reproductive gland of certain gastropods.

ovoviviparous (ō'vōvivip'ārūs) *a.* [L. *ovum*, egg; *vivus*, living; *parere*, to bring forth.] *Pert.* forms which produce an egg with definite shell, which hatches in maternal body; *cf.* oviparous, viviparous.

ovular (ōv'ulār) *a.* [*Dim.* of L. *ovum*, egg.] Like or *pert.* an ovule.

ovulate (ōv'ulāt) *a.* [L. *ovum*, egg.] Containing an egg or ovule. *v.* To emit egg or eggs from ovary or ovarian follicles.

ovulation (ōvulā'shūn) *n.* [L. *ovum*, egg; *latum*, borne away.] The emission of the egg or eggs from the ovary.

ovulatory (ōv'ulātōrī) *a.* [L. *ovum*, egg; *latum*, borne away.] *Pert.* ovulation.

ovule (ō'vūl) *n.* [L. *ovum*, egg.] The megasporangium of seed-plant; a small egg or egg-like structure.

ovuliferous (ō'vūlif'ērūs) *a.* [L. *ovum*, egg; *ferre*, to carry.] Ovule-producing; containing ovules; *appl.* scales, each bearing one or more ovules, developed on bract scales, as in Coniferae.

ovulophore,—a gynoeceium bearing ovules.

ovum (ō'vūm) *n.* [L. *ovum*, egg.] A female germ cell; mature egg-cell. *Plu.* ova.

oxalates (ōk'sālāts) *n. plu.* [Gk. *oxys*, sharp.] Salts of oxalic acid, occurring as metabolic by-products in various plant tissues and in urine; also found in mantle of certain bivalves.

oxea (ōksē'ā) *n.* [Gk. *oxys*, sharp.] A sponge spicule, rod-shaped and sharp at both ends.

oxeote (ōk'sēōt) *a.* [Gk. *oxys*, sharp.] Like an oxea; in form of a simple rod; *appl.* sponge spicules.

oxidase (ōk'sidās) *n.* [Gk. *oxys*, sharp.]

An enzyme which promotes oxidation; an oxidising enzyme.

oxidise (ōk'sidīz) *v.* [Gk. *oxys*, sharp.] To combine with oxygen; to increase oxygen content.

oxidoreductase,—a hydrogen-transferring enzyme, *i.e.*, an oxidase, a dehydrogenase, or a reductase.

oxyaster (ōk'siās'tēr) *n.* [Gk. *oxys*, sharp; *aster*, star.] Stellate sponge spicule with sharp-pointed rays.

oxybiotic (ōk'sibīōt'ik) *a.* [Gk. *oxys*, sharp; *biotos*, means of life.] Living in presence of oxygen; aerobic.

oxychlorocruorin (ōk'siklō'rōkroo'ōrin) *n.* [Gk. *oxys*, sharp; *chloros*, green; L. *cruor*, blood.] Chlorocruorin combined with oxygen, as in aerated blood of worms.

oxychromatin (ōk'sikrō'mātin) *n.* [Gk. *oxys*, sharp; *chroma*, colour.] Linin.

oxydactyl (ōk'sidāk'til) *a.* [Gk. *oxys*, sharp; *daktylos*, finger.] Having slender tapering digits.

oxydiact (ōk'sidi'ākt) *a.* [Gk. *oxys*, sharp; *di-*, two; *aktis*, ray.] Having three rays with two fully developed; *appl.* sponge spicules.

oxygnathous (ōksig'nāthūs) *a.* [Gk. *oxys*, sharp; *gnathos*, jaw.] Having more or less sharp jaws.

oxyhaemocyanin (ōk'sihē'mōsi'ānin) *n.* [Gk. *oxys*, sharp; *haima*, blood; *kyanos*, blue.] Haemocyanin combined with oxygen as in aerated blood of Mollusca and Crustacea.

oxyhaemoglobin (ōk'sihē'mōglō'bīn) *n.* [Gk. *oxys*, sharp; *haima*, blood; L. *globus*, globe.] Haemoglobin combined with oxygen, as found in arterial blood; HbO₂.

oxyhexactine (ōk'sihēksāk'tīn) *n.* [Gk. *oxys*, sharp; *hex*, six; *aktis*, ray.] A hexactine with rays ending in sharp points.

oxyhexaster (ōk'sihēksās'tēr) *n.* [Gk. *oxys*, sharp; *hex*, six; *aster*, star.] A hexaster with rays ending in sharp points.

oxyluciferin (ōk'siloosif'ērīn) *n.* [Gk. *oxys*, sharp; L. *lux*, light; *ferre*, to carry.] The substance formed by action of luciferase on luciferin, emitting light in photogenic organs.

oxyntic (ök'sin'tik) *a.* [Gk. *oxynein*, to sharpen.] Secreting acid; *appl.* parietal cells and fundus glands of stomach.

oxyphil (ök'sifil) *a.* [Gk. *oxys*, sharp; *philein*, to love.] Having strong affinity for acid stains; oxyphilic. *n.* Oxyphil cell or tissue element.

oxyphilous (öksif'ilüs) *a.* [Gk. *oxys*, sharp; *philein*, to love.] Tolerating only acid soils or substrates.

oxyphobe (ök'siföb) *a.* [Gk. *oxys*, sharp; *phobos*, flight.] Unable to tolerate soil acidity.

oxyphyte (ök'sifit) *n.* [Gk. *oxys*, sharp; *phylon*, plant.] A plant thriving on acid soil; a calcifuge.

oxytotic (ök'sitös'ik) *a.* [Gk. *oxys*, sharp; *tokos*, birth.] Accelerating parturition; *appl.* pituitary hormone inducing contraction of uterus.

oxytocin (ök'sitös'in) *n.* [Gk. *oxys*, sharp; *tokos*, birth.] Hormone secreted by posterior lobe of pituitary gland, which induces contraction of smooth muscle, particularly of uterine muscle; α -hypophamine; pitocin.

oxytophyte,—oxyphyte.

oxytropism (öksit'röpizm) *n.* [Gk. *oxys*, sharp; *trope*, turn.] Tendency of organisms to be attracted by oxygen.

oxytylote (ök'sitilöt') *n.* [Gk. *oxys*, sharp; *tylos*, knob.] A slender, straight sponge spicule, sharp at one end, knobbed at the other.

ozonium (özö'niüm) *n.* [Gk. *ozos*, twig.] Barren mycelium; a dense mycelium, as at base of a stipe.

P

P₁,—denoting first parental generation, **P₂** the grandparents, etc., in law of Mendel; *cf.* **F₁**.

Pacchionian bodies [*A. Pacchioni*, Italian anatomist]. Arachnoideal granulations, eminences of sub-arachnoid tissue covered by arachnoid membrane and pressing into dura mater.

pace-maker,—a part or region determining rate of activity in other parts

of the body; the sinu-auricular node, which initiates the normal heart-beat.

pachydermatous (pāk'idēr'mätüs) *a.* [Gk. *pachys*, thick; *derma*, skin.] With thick skin or covering.

pachymeninx (pāk'imēn'ingks) *n.* [Gk. *pachys*, thick; *meninx*, membrane.] The dura mater.

pachynema (pāk'inē'mä) *n.* [Gk. *pachys*, thick; *nema*, thread.] Chromosome thread at the pachytene stage.

pachynesis (pāk'n'ēsīs) *n.* [Gk. *pachynesis*, thickening.] Thickening, as of mitochondria.

pachynosis (pāk'n'ösīs) *n.* [Gk. *pachynesis*, thickening.] Growth in thickness, as of plants.

pachytene (pāk'itēn) *a.* [Gk. *pachys*, thick; *tainia*, band.] *Appl.* prophase stage in meiosis during which homologous chromosomes are associated as bivalents.

Pacinian bodies or corpuscles [*F. Pacini*, Italian anatomist]. Distal nerve-endings, consisting of lamellated connective-tissue capsule with core of nucleated protoplasmic cells containing ramifications of a medullated nerve-fibre; corpusculum lamellosum.

paedogamy (pēdög'amī) *n.* [Gk. *pais*, child; *gamos*, marriage.] Type of autogamy in protozoa where gametes are formed after multiple division of nucleus.

paedogenesis (pē'döjēn'ēsīs) *n.* [Gk. *pais*, child; *genesis*, descent.] Reproduction in young or larval stages, as axolotl, certain Diptera.

paedomesoblast (pē'dömēs'öbläst) *n.* [Gk. *pais*, child; *mesos*, middle; *blastos*, bud.] Portions of primitive mesoblast destined to form transitory larval structures.

paedomorphic (pē'dömôr'fik) *a.* [Gk. *pais*, child; *morphe*, form.] *Appl.* or *pert.* primitive or embryonic structures appearing in recent or in adult animals.

paired bodies,—small bodies lying close to sympathetic chain in Elasmobranchii, representing the adrenal medulla.

paired fins,—pectoral and pelvic fins of fishes.

pairing,—process of attraction between homologous chromosomes during zygotene.

palaearctic (pāl'ēark'tík) *a.* [Gk. *palaios*, ancient; *Arktos*, Great Bear.] *Appl.* or *pert.* a zoogeographical region, or sub-region of the holarctic region, including Europe, North Africa, Western Asia, Siberia, northern China, and Japan.

palaeobiology (pāl'ēöbīöl'öji) *n.* [Gk. *palaios*, ancient; *bios*, life; *logos*, discourse.] Biology of extinct plants and animals.

palaeobotany (pāl'ēöböt'āni) *n.* [Gk. *palaios*, ancient; *botane*, pasture.] Botany of fossil plants and plant impressions; palaeophytology.

Palaeocene (pāl'ēösēn) *a.* [Gk. *palaios*, ancient; *kainos*, recent.] *Appl.* and *pert.* earliest epoch of the Caenozoic era.

palaeocerebellum (pāl'ēösēr'ēbēl'üm) *n.* [Gk. *palaios*, ancient; *L. dim. of cerebrum*, brain.] Phylogenetically older region of cerebellum, receiving spinal and vestibular afferent fibres. *Opp.* neocerebellum.

palaeocranium (pāl'ēökrā'nium) *n.* [Gk. *palaios*, ancient; *kranion*, skull.] Type of skull or stage in development extending no further back than vagus nerve.

palaeodendrology (pāl'ēödēndröl'öji) *n.* [Gk. *palaios*, ancient; *dendron*, tree; *logos*, discourse.] Botany of fossil trees and tree impressions.

palaeo-ecology (pāl'ēöēköl'öji) *n.* [Gk. *palaios*, ancient; *oikos*, household; *logos*, discourse.] The study of the relationship between extinct organisms and their life-time environment.

palaeo-encephalon (pāl'ēöēnkēf'-älön, -sēf-) *n.* [Gk. *palaios*, ancient; *engkephalos*, brain.] The segmental or primitive vertebrate brain.

Palaeogene (pāl'ēöjēn) *a.* [Gk. *palaios*, ancient; *genos*, an age.]

Pert. or *appl.* the early Tertiary period, Eocene and Oligocene.

palaeogenetic (pāl'ēöjēnēt'ik) *a.* [Gk. *palaios*, ancient; *genesis*, descent.] *Appl.* atavistic features fully developed, which are usually characteristically embryonic.

palaeogenetics (pāl'ēöjēnēt'iks) *n.* [Gk. *palaios*, ancient; *genesis*, descent.] Genetics as applied to palaeontology; genetic interpretation of fossil structures or species.

Palaeolaurentian (pāl'ēöläören'shiän) *a.* [Gk. *palaios*, ancient; River *St Lawrence*.] *Pert.* or *appl.* Archaeozoic era.

Palaeolithic (pāl'ēö lith'ik) *a.* [Gk. *palaios*, ancient; *lithos*, stone.] *Appl.* or *pert.* the older or chipped stone age.

palaeontology (pāl'ēöntöl'öji) *n.* [Gk. *palaios*, ancient; *on*, being; *logos*, discourse.] The science of past organic life, based on fossils and fossil impressions.

palaeophytology,—palaeobotany.

palaeotropical (pāl'ēötröp'ikäl) *a.* [Gk. *palaios*, ancient; *tropikos*, *pert.* tropics.] *Appl.* or *pert.* floristic region including African, Indo-Malaysian, and Polynesian sub-regions.

palaeovirus (pāl'ēövī'rüs) *n.* [Gk. *palaios*, ancient; *L. virus*, poison.] A virus evolved from a more or less remote viroid ancestor. *Opp.* neovirus.

Palaeozoic (pāl'ēözö'ik) *a.* [Gk. *palaios*, ancient; *zoon*, animal.] *Appl.* era comprising the Proterozoic and Deuterozoic faunal epochs, preceding the Mesozoic era; Cambrian to Permian periods; the age of fishes and amphibians; Primary era.

palaeozoology (pāl'ēözööl'öji) *n.* [Gk. *palaios*, ancient; *zoon*, animal; *logos*, discourse.] Zoology of fossil animals and animal impressions.

palama (pāl'ämä) *n.* [Gk. *palame*, the palm.] Foot-webbing of aquatic birds.

palatal (pāl'ätäl) *a.* [*L. palatum*, palate.] *Pert.* palate; palatine; *appl.* bone, sinus, etc.

palate (pāl'āt) *n.* [L. *palatum*, palate.] Roof of mouth; insect epipharynx; projection of lower lip of personate corolla.

palatine (pāl'ātfn) *a.* [L. *palatum*, palate.] *Pert.* or in region of palate; *appl.* artery, bone, foramen.

palatoglossal (pāl'ātöglös'äl) *a.* [L. *palatum*, palate; Gk. *glossa*, tongue.] *Pert.* palate and tongue; *appl.* a muscle; glossopalatine.

palatonasal (pāl'ätönä'zäl) *a.* [L. *palatum*, palate; *nasus*, nose.] *Pert.* palate and nose.

palatopharyngeal (pāl'ätöfärin'jéal) *a.* [L. *palatum*, palate; Gk. *pharyngx*, pharynx.] In region of palate and pharynx; pharyngopalatine; *appl.* a muscle.

palatopterygoid (pāl'ätötér'igoid) *a.* [L. *palatum*, palate; Gk. *pterygion*, little wing; *eidōs*, form.] *Pert.* palate and pterygoid.

palatoquadrate (pāl'ätökwöd'rät) *a.* [L. *palatum*, palate; *quadratus*, squared.] Connecting palatine and quadrate; *appl.* dorsal cartilage of mandibular arch.

palea (pāl'lä) *n.* [L. *palea*, chaff.] A small bract on floret of Compositae; an inner chaffy bracteole, valvule or upper palea, of grasses; lower palea or lemma; ramentum or scaly growth of epidermis in ferns.

paleaceous (pāl'lä'shüs) *a.* [L. *palea*, chaff.] Chaffy; *appl.* a capitulum furnished with small scaly bracts or paleae.

paleo-,—paleo-.

palet,—palea, of grasses.

palette (pāl'ët) *n.* [F. *palette* from L. *pala*, spade.] The modified cupule-bearing tarsus of anterior leg, in male beetles.

pali (pāl'li) *n. plu.* [L. *palus*, stake.] A series of small pillars projecting upwards from the theca-base towards stomodaeum of madreporic corals.

paliform (pāl'liförm) *a.* [L. *palus*, stake; *forma*, shape.] Like an upright stake.

palinal (pāl'inäl) *a.* [Gk. *palin*, reversely.] From behind forwards; *appl.* jaw movement, as in elephants. *Opp.* proral.

palingenesis (pāl'injën'esīs) *n.* [Gk. *palin*, anew; *genesis*, descent.] Abrupt metamorphosis; rebirth of ancestral characters; recapitulation.

palingenetic (pāl'injënët'ik) *a.* [Gk. *palin*, anew; *genesis*, descent.] Of remote or ancient origin; *pert.* palingenesis.

palisade (pälisäd') *n.* [F. *palissade*, from L. *palus*, stake.] Arrangement of apposed elongated cellular structures; *appl.* fungi, the Basidiomycetes; *appl.* cells, of ends of cortical hyphae in lichens; *appl.* tissue, the layer or layers of photosynthetic cells beneath the epidermis of many foliage leaves; *appl.* nerve fibrils in inner surface of electric layer in ray-fish; *appl.* tissue derived from neurolemma at neuromuscular junction in end-plates.

pallaesthesia (päl'esthē'ziä) *n.* [Gk. *pallein*, to quiver; *aisthesis*, sensation.] Vibratory sensation; bone sensibility.

pallet (pāl'ët) *n.* [L. *pala*, spade.] A shelly plate on a bivalve siphon.

pallial (pāl'iäl) *a.* [L. *pallium*, mantle.] *Pert.* molluscan pallium or mantle; *appl.* line, groove, sinus, muscles, ganglion.

palliate (pāl'iät) *a.* [L. *pallium*, mantle.] Having a mantle or similar structure.

pallidum (päl'idüm) *n.* [L. *pallidus*, pale.] The medial parts or globus pallidus of lentiform nucleus.

palliopedal (päliöp'edäl) *a.* [L. *pallium*, mantle; *pes*, foot.] *Pert.* molluscan mantle and foot.

pallium (päl'iüm) *n.* [L. *pallium*, mantle.] A mollusc or brachiopod mantle; portion of cerebral wall.

palmar (päl'mär) *a.* [L. *palma*, palm of hand.] *Pert.* palm of hand; *appl.* aponeurosis, nerve, muscle, reflex.

palmaria (pälmä'riä) *n. plu.* [L. *palmaris*, *pert.* palm.] The third brachials of Crinoidea.

palmate (pāl'māt) *a.* [L. *palma*, palm.] *Appl.* leaves divided into lobes arising from a common centre; *appl.* hand-like tuber, as in certain orchids; *appl.* folds of cervix uteri; having anterior toes webbed, as in most aquatic birds.

palmatifid (pālmāt'ifid) *a.* [L. *palma*, palm; *findere*, to cleave.] *Appl.* leaves divided into lobes to about the middle, at acute angles to each other.

palmatilobate (pālmāt'ilō'bāt) *a.* [L. *palma*, palm; *lobus*, lobe.] Palmate with rounded lobes and divisions half-way to base.

palmatipartite (pālmāt'ipār'tit) *a.* [L. *palma*, palm; *partitus*, divided.] Palmate with divisions more than half-way to base.

palmatisect (pālmāt'isēkt) *a.* [L. *palma*, palm; *sectus*, cut.] Palmate with divisions nearly to base.

palmella (pālmē'lā) *n.* [Gk. *palmos*, quivering.] A sedentary stage of certain algae, the cells dividing within a jelly-like mass and producing motile gametes.

palmigrade,—plantigrade.

palmiped (pāl'mipēd) *a.* [L. *palma*, palm; *pes*, foot.] Web-footed. *n.* A web-footed bird.

palmitin (pāl'mittin) *n.* [Gk. *palma*, palm-tree.] A fat occurring in adipose tissue, milk, and palm-oil; $(C_{15}H_{31}COO)_3C_3H_5$.

palmula (pāl'mulā) *n.* [L. *palma*, palm.] Terminal lobe or process between paired claws of insect feet.

palp,—palpus, *q.v.*

palpacle (pāl'pākl) *n.* [L. *palpare*, to touch softly.] The tentacle of a dactylozoid or palpon of Siphonophora.

palpal (pāl'pāl) *a.* [L. *palpare*, to stroke.] *Pert.* a palpus.

palpate (pāl'pāt) *a.* [L. *palpare*, to stroke.] Provided with palpus or palpi. *v.* To examine by touch.

palpebra (pāl'pēbrā) *n.* [L. *palpebra*, eyelid.] An eyelid. *Plu.* palpebrae.

palpebral (pāl'pēbrāl) *a.* [L. *palpebra*, eyelid.] *Pert.* eyelids; *appl.* arteries, ligament, nerves, etc.;

appl. a lobe on which the eye of trilobites rests.

palpi,—*plu.* of palpus.

palpifer (pāl'pifēr), **palpiger** (pāl'pījēr) *n.* [L. *palpare*, to stroke; *ferre*, *gerere*, to carry.] A maxilla lobe or lobe of prementum bearing palpus of insects.

palpiform (pāl'pifōrm) *a.* [L. *palpare*, to stroke; *forma*, shape.] Resembling a palpus or insect feeler.

palpimacula (pāl'pimāk'ulā) *n.* [L. *palpare*, to stroke; *macula*, spot.] Sensory area on labial palps of certain insects.

palpocil (pāl'pōsil) *n.* [L. *palpare*, to touch; *cilium*, eyelash.] A stiff sensory filament attached to sense cells of Hydromedusae.

palpon (pāl'pōn) *n.* [L. *palpare*, to stroke.] A hydrocyst or dactylozoid of Siphonophora.

palpulus (pāl'pūlūs) *n.* [L. *palpare*, to stroke.] A small palpus or feeler.

palpus (pāl'pūs) *n.*, **palpi** (pāl'pī) *plu.* [L. *palpare*, to stroke.] Labial feelers of Insecta; sensory appendages on prostomium of Polychaeta, on mandibles of Crustacea; pedipalpus, *q.v.*

paludal (pālū'dāl) *a.* [L. *palus*, marsh.] Marshy; *pert.*, or growing in, marshes or swamps; paludine, paludinous, paludose, palustral, palustrine.

paludicrine (pālū'dikōl) *a.* [L. *palus*, marsh; *colere*, to inhabit.] Living in marshes; paludal, palustral.

palule (pāl'ul) *n.* [L. *palus*, stake.] An unattached calcareous process of corals; a small palus.

palus (pāl'ūs) *n.* [L. *palus*, stake.] A stake-like structure. *Plu.* pali, *q.v.*

palustral,—paludal, paludicole.

palynology (pāl'nōl'ōjī) *n.* [Gk. *palynein*, to scatter (*pale*, pollen); *logos*, discourse.] The study of pollen and of its distribution; pollen analysis; the study of spores.

pampiniform (pāmpin'ifōrm) *a.* [L. *pampinus*, tendril; *forma*, shape.] Tendril-like; *appl.* a convoluted vein plexus of spermatid cord; *appl.* body, the parovarium.

pamprodactylous (pām'prōdāk'tilūs) *a.* [Gk. *pan*, all; *pro*, in front; *daktylos*, digit.] With all toes pointing forward.

pancreas (pān'krēās) *n.* [Gk. *pan*, all; *kreas*, flesh.] A compound racemose gland, with exocrine and endocrine functions, of most vertebrates.

pancreatic (pānkrēāt'ik) *a.* [Gk. *pan*, all; *kreas*, flesh.] *Pert.* pancreas; *appl.* artery, duct, vein, enzymes, hormones, juice.

pancreaticoduodenal, — *pert.* pancreas and duodenum; *appl.* arteries, veins.

pancreatin,—extract of pancreas containing several enzymes, as amylase, lipase, trypsin.

pancreatophic (pān'krēātrōf'ik) *a.* [Gk. *pan*, all; *kreas*, flesh; *trophē*, nourishment.] *Appl.* prepituitary hormone or principle causing increase in secretion of insulin.

pancreozymin (pān'krēōzī'min) *n.* [Gk. *pan*, all; *kreas*, flesh; *zyme*, leaven.] Duodenal secretion or hormone which stimulates production of pancreatic enzymes.

pandemic (pāndēm'ik) *a.* [Gk. *pandemos*, common.] Epidemic everywhere; very widely distributed; cosmopolitan, *appl.* plants.

panduriform (pāndū'rifōrm) *a.* [Gk. *pandoura*, lute; *L. forma*, shape.] Fiddle-shaped; *appl.* leaves.

Paneth cells [*J. Paneth*, Austrian physician]. Enzyme-producing cells at base of crypts of Lieberkühn.

pangamic (pāngām'ik) *a.* [Gk. *pan*, all; *gamos*, marriage.] *Appl.* indiscriminate mating.

pangamy (pān'gāmī) *n.* [Gk. *pan*, all; *gamos*, marriage.] Random mating.

pangen (pān'jēn) *n.* [Gk. *pan*, all; *genos*, offspring.] A hypothetical unit, *q.v.*

pangensis (pānjēn'ēsīs) *n.* [Gk. *pan*, all; *genesis*, descent.] The gemmule theory, that hereditary characteristics are carried by germs from individual body cells.

panicle (pān'ikl) *n.* [*L. panicula*,

tuft.] A tuft or bunch of flowers or seeds, close or scattered; a compound raceme.

paniculate (pānik'ulāt) *a.* [*L. panicula*, tuft.] Having flowers arranged in panicles.

panmeristic (pān'mērīs'tik) *a.* [Gk. *pan*, all; *meros*, part.] *Appl.* an ultimate protoplasmic structure of independent units.

panmictic (pānmik'tik) *a.* [Gk. *pan*, all; *miktos*, mixed.] Characterised by, or resulting from, random matings; *pert.* panmixia.

panmixia (pānmik'siā) *n.* [Gk. *pan*, all; *mixis*, mixing.] Indiscriminate interbreeding consequent on suspension of influence of natural selection.

panniculus (pānik'ulūs) *n.* [*L. dim.* of *pannus*, cloth.] A layer of tissue, as superficial fascia.

pannose (pān'ōs) *a.* [*L. pannosus*, from *pannus*, cloth.] Like cloth.

panoistic (pānōis'tik) *a.* [Gk. *pan*, all; *oon*, egg.] *Appl.* ovariole in which nutritive cells are absent, egg-yolk being formed by epithelium of follicle. *Opp.* meroistic.

panphotometric (pān'fōtōmēt'rik) *a.* [Gk. *pan*, all; *phos*, light; *metron*, measure.] *Appl.* leaves oriented to avoid maximum direct sunlight; *cf.* euphotometric.

pansporoblast (pānspō'rōblāst) *n.* [Gk. *pan*, all; *sporos*, seed; *blastos*, bud.] A cell-complex, of Neosporidia, producing sporoblasts and spores; an archespire.

panthalassic (pān'thālās'ik) *a.* [Gk. *pan*, all; *thalassa*, sea.] Living both in coastal and offshore waters; neritic and oceanic.

pantothenic (pāntōthēn'ik) *a.* [Gk. *pantothēn*, from everywhere.] *Appl.* acid occurring in tissues and foods, the rat anti-grey hair and chick antidermatitis factor of vitamin B complex: vitamin B₅; C₉H₁₇O₅N.

pantropic (pantrōp'ik) *a.* [Gk. *pan*, all; *tropikos*, turning.] Turning to any direction; invading many different tissues, *appl.* viruses; polytropic.

pantropical,—distributed throughout the tropics; *appl.* species.

papilionaceous (pāpīl'ionā'shūs) *a.* [L. *papilio*, butterfly.] Resembling a butterfly; *appl.* a corolla of five petals, one enlarged posterior standard or vexillum, two united anterior forming a keel or carina, and two lateral, the wings or alae.

papilla (pāpīl'ā) *n.* [L. *papilla*, nipple.] A glandular hair with one secreting cell above the epidermis level; an accessory adhesive organ with retractile tip, of some trematodes; a conical dermal structure on birds, the beginning of a feather; one of various small projections of corium of tongue, and eminences on skin; a conical structure, as nipple. apex of renal pyramid, lacrimal papilla, etc.

papillary (pāp'ilārī) *a.* [L. *papilla*, nipple.] *Pert.* or with papillae; *appl.* a dermal layer; *appl.* a process of caudate lobe of liver; *appl.* muscles between walls of ventricles of heart and chordae tendineae.

papillate (pāp'ilāt) *a.* [L. *papilla*, nipple.] Covered by papillae; papillose; like a papilla; *appl.* petals with external cells projecting slightly above surface.

papilliform (pāp'il'fōrm) *a.* [L. *papilla*, nipple; *forma*, shape.] Like a papilla in shape.

papillose,—papillate.

pappiferous (pāpif'ērūs) *a.* [L. *pappus*, down; *ferre*, to carry.] Pappus-bearing.

pappose (pāpōs') *a.* [L. *pappus*, down.] Having limb of calyx developed as a tuft of hairs or bristles; downy, or covered with feathery processes; pappous.

pappus (pāp'ūs) *n.* [L. *pappus*, down.] A circle or tuft of bristles, hairs, or feathery processes in place of limb of a calyx.

papulae (pāp'ūlē) *n. plu.* [L. *papula*, pimple.] Dermal gills; hollow contractile skin processes of Asteroidea, with respiratory function; pimples; pustules.

papyraceous (pāpīrā'sēūs) *a.* [L. *papyrus*, papyrus-rush.] Of papery texture; papyritious.

para-aortic (pār'āāōr'tik) *a.* [Gk. *para*, beside; *aorte*, great artery.] *Appl.* chromaffin bodies or paraganglia alongside the abdominal aorta.

parabasal (pārābā'sāl) *a.* [Gk. *para*, beside; *basis*, base.] *Appl.* a striated apparatus surrounding the calyx of certain protozoa; *appl.* granule, or kintoneucleus, a cell-body of flagellates.

parabasalia (pār'ābāsā'liā) *n. plu.* [Gk. *para*, beside; *basis*, base.] The basalia of crinoids when a circlet of perradial infrabasalia occurs beneath them.

parabiosis (pār'ābiō'sīs) *n.* [Gk. *para*, beside; *biosis*, manner of life.] The condition of being conjoined, either from birth, as Siamese twins, or experimentally, as laboratory animals; phylacobiosis, *q.v.*

parabiatic (pār'ābiōt'ik) *a.* [Gk. *para*, beside; *bios*, life.] Conjoined to greater or less extent; tutelary or phylacobiotic, in ants; living amicably in compound nest, as ants of different species or genera.

parablast (pār'āblāst) *n.* [Gk. *para*, beside; *blastos*, bud.] The yolk of meroblastic eggs; large nuclei of cells laden with yolk-granules, in development of higher mammals.

parabranchia (pārābrāng'kiā) *n.* [Gk. *para*, beside; *branchia*, gills.] A much plumed mollusc osphradium or chemoreceptor.

parabronchi (pārābrōng'ki) *n. plu.* [Gk. *para*, beside; *brongchos*, wind-pipe.] The tertiary lung tubes of birds, their terminations being embedded in lung mesenchyme.

paracardial (pārākār'diāl) *a.* [Gk. *para*, beside; *kardia*, stomach.] Near, or surrounding, cardia or neck of stomach; *appl.* lymph-glands.

paracasein,—see casein.

paracele,—paracoel.

- paracentral** (päräsën'träl) *a.* [Gk. *para*, beside; L. *centrum*, centre.] Situated at or near the centre; *appl.* lobule, gyrus, fissure.
- paracentric** (pär'äsën'trīk) *a.* [Gk. *para*, beside; *kentron*, centre.] On same side of centromere; *appl.* rearrangements in same chromosome arm; *appl.* inversions not including the centromere, *opp.* pericentric; homobrachial.
- parachordal** (päräkôr'däl) *a.* [Gk. *para*, beside; *chorde*, cord.] On either side of notochord; *appl.* paired horizontal cartilage plates on sides of chondrocranium.
- parachromatin** (päräkro'mätin) *n.* [Gk. *para*, beside; *chroma*, colour.] Achromatic nuclear substance giving rise to spindle-fibres.
- parachrosis** (pär'äkrô'sis, päräk'rôsis) *n.* [Gk. *para*, proceeding from; *chros*, colour; *parachroos*, changing colour.] Process or condition of changing colour; discoloration; fading.
- parachute** (pär'ashoot) *n.* [F. *parer* from L. *parare*, to prepare; F. *chute*, fall.] A special structure of seeds as aril, caruncle, pappus, wing, which assists dispersal.
- paracme** (päräk'mē) *n.* [Gk. *parakme*, decadence.] The decline of a species or race after reaching highest point of development.
- paracoel** (pär'äsēl) *n.* [Gk. *para*, beside; *koilos*, hollow.] Lateral ventricle or cavity of cerebral hemisphere.
- paracondyloid** (päräkôn'diloid) *a.* [Gk. *para*, beside; *kondylos*, knuckle; *eidos*, form.] *Appl.* process of occipital occurring beside condyles of some mammals.
- paracone** (pär'äkôn) *n.* [Gk. *para*, beside; *konos*, cone.] Antero-external cusp of upper molar.
- paraconid** (päräkô'nīd) *n.* [Gk. *para*, beside; *konos*, cone.] Antero-internal cusp of lower molar.
- paracorolla** (pär'äköröl'ä) *n.* [Gk. *para*, beside; L. *corolla*, small crown.] A corolla appendage.
- paracutis** (päräkū'tis) *n.* [Gk. *para*, beside; L. *cutis*, skin.] A fungal cutis consisting of more or less isodiametric cells.
- paracymbium** (pär'äsimbī'um) *n.* [Gk. *para*, beside; *kymbion*, small boat.] Accessory part of cymbium, between tibia and tarsus, in some spiders.
- paracyst** (pär'äsist) *n.* [Gk. *para*, beside; *kystis*, bladder.] The antheridium of Pyronema.
- paracyte** (pär'äsīt) *n.* [Gk. *para*, beside; *kytos*, hollow.] A modified cell extruded from embryonic tissue into yolk, as in some insects.
- paracytoids** (päräsī'toidz) *n. plu.* [Gk. *para*, beside; *kytos*, hollow; *eidos*, shape.] Coherent minute chromatin pieces cast out from nuclei of embryonic tissue cells, with cytoplasmic envelope, into the blood, as in certain insects.
- parademe** (pär'ädēm) *n.* [Gk. *para*, beside; *demas*, body.] A secondary apodeme arising from edge of a sclerite.
- paraderm** (pär'ädērm) *n.* [Gk. *para*, beside; *derma*, skin.] A derm composed of isodiametric hyphae; the delicate limiting membrane of a pronymph.
- paradesmus** (pär'ädēs'mūs) *n.* [Gk. *para*, beside; *desmos*, bond.] Secondary connection between centrioles outside nucleus in mitosis of flagellates; also paradesmose, paradesm.
- paradidymis** (pärädīd'īmīs) *n.* [Gk. *para*, beside; *didymos*, testicle.] A body of convoluted tubules anterior to lower part of spermatric cord, representing posterior part of embryonic mesonephros; organ of Giraldès.
- para-esophageal**, — para-oesophageal.
- parafacialia** (pär'äfāsīā'lliā) *n. plu.* [Gk. *para*, beside; L. *facies*, face.] Narrow parts of head capsule between frontal suture and eyes, as in certain Diptera.
- parafibula** (päräfib'ülā) *n.* [Gk. *para*, beside; L. *fibula*, buckle.] An

accessory element outside fibula at proximal end, seen in some Lacerilia and young marsupials.

paraflagellum (pär'äfläjél'üm) *n.* [Gk. *para*, beside; L. *flagellum*, whip.] A subsidiary flagellum.

paraflagellus (pär'äflök'ülüs) *n.* [Gk. *para*, beside; L. *floccus*, lock of wool.]

Cerebellar lobule lateral to flocculus.

parafrons (pär'äfröns) *n.* [Gk. *para*, beside; L. *frons*, forehead.] Area between eyes and frontal suture in certain insects.

parafrontals (pär'äfrün'tälz) *n. plu.* [Gk. *para*, beside; L. *frons*, forehead.] The continuation of genae between eyes and frontal suture in insects; genavertical plates.

paraganglia (pär'ägäng'gliä) *n. plu.* [Gk. *para*, beside; *ganglion*, swelling.] Scattered cell clusters along aorta and in other parts of body, considered to secrete adrenaline; chromophil or phaeochrome cells.

paragaster (pärägäs'tër) *n.* [Gk. *para*, beside; *gaster*, stomach.] A central cavity of sponges into which gastric ostia open.

paragastric (pärägäs'trik) *a.* [Gk. *para*, beside; *gaster*, stomach.] *Pert.* a paragaster; *appl.* passages or cavities in branches of sponge; *appl.* paired blind canals from infundibulum to oral cone of ctenophores.

paragastrula (pärägäs'troolä) *n.* [Gk. *para*, beside; *gaster*, stomach.] Stage of amphiblastula of sponge when flagellated cells are invaginated into dome of rounded cells.

paragenesis (päräjén'ësis) *n.* [Gk. *para*, beside; *genesis*, descent.] Hybrids' fertility with parent species but not *inter se*; a subsidiary mode of reproduction.

paraglenal (päräglë'näl) *a.* [Gk. *para*, beyond; *glene*, socket.] Hypercoracoid.

paraglobulin (pär'äglöb'ülín) *n.* [Gk. *para*, beside; L. *globus*, globe.] Globulin of blood serum.

paraglossa (päräglö'sä) *n.* [Gk. *para*, beside; *glossa*, tongue.] A

process on each side of ligula of insects; hypopharynx; a paired cartilage of chondrocranium.

paraglycogen (pärägli'köjën) *n.* [Gk. *para*, beside; *glykys*, sweet; *genos*, birth.] Reserve food-material stored in protoplasm-grains of Gregarina.

paragnatha (päräg'näthä) *n. plu.* [Gk. *para*, beside; *gnathos*, jaw.] Paired, delicate, unjointed processes of maxilla of certain arthropods.

paragnathous (päräg'näthüs) *a.* [Gk. *para*, beside; *gnathos*, jaw.] With mandibles of equal length; *appl.* birds.

para-Golgi apparatus,—small constituents of cell, in spaces between parts of Golgi apparatus.

paragula (pärägü'lä) *n.* [Gk. *para*, beside; L. *gula*, gullet.] A region beside gula on insect head.

paragynous (päräj'inüs) *a.* [Gk. *para*, beside; *gyne*, female.] *Appl.* antheridia lateral to oogonium, as in some Peronosporales.

paraheliode (pär'ähë'liöd) *n.* [Gk. *para*, against; *helios*, sun.] A special arrangement of spines in certain Cactaceae; parasol.

paraheliotropism (pär'ähëliöt'röp-izm) *n.* [Gk. *para*, against; *helios*, sun; *trope*, turn.] Tendency of plants to turn edges of leaves towards intense illumination, thus protecting surfaces.

parahormone (pär'ähôr'môn) *n.* [Gk. *para*, beside; *hormaein*, to arouse.] A substance which acts like a hormone but is a product of ordinary metabolism of cells.

parahypophysis (pär'ähipöf'isis) *n.* [Gk. *para*, beside; *hypo*, under; *phyein*, to grow.] Vestigial structure below pituitary gland.

paralectotype (pär'älëk'tötíp) *n.* [Gk. *para*, beside; *lektos*, chosen; *typos*, pattern.] A specimen, of a series used to designate a species, which is later designated as a paratype.

paralimnic (pärälim'ník) *a.* [Gk. *para*, beside; *limne*, lake.] *Pert.* or inhabiting shore of lakes.

paralinin (părălî'nîn) *n.* [Gk. *para*, beside; *linon*, linen thread.] Nuclear ground-substance.

parallelinervate, parallelodrome, —*appl.* leaves with veins or nerves parallel.

parallelotropic, —orthotropic.

paralutein (părălū'tēin, -loo'tēin) *n.* [Gk. *para*, beside; *L. luteus*, golden-yellow.] *Appl.* epithelioid luteal cells of theca interna, *opp.* epithelial follicular luteal cells.

paramastigote (părāmās'tigōt) *a.* [Gk. *para*, beside; *mastix*, whip.] Having one long principal flagellum and a short accessory one, as certain Mastigophora.

paramastoid (părāmās'toid) *a.* [Gk. *para*, beside; *mastos*, breast; *eidos*, form.] Beside the mastoid; *appl.* two paroccipital processes of exoccipitals; *appl.* a process projecting from the jugular process.

paramere (păr'āmēr) *n.* [Gk. *para*, beside; *meros*, part.] Half of a bilaterally symmetrical structure; one of paired lobes exterior to penis in some insects.

paramesonephric (păr'āmēs'ōnēf'rik, -mēz-) *a.* [Gk. *para*, beside; *mesos*, middle; *nephros*, kidney.] *Appl.* ducts on lateral sides of mesonephric ducts and giving rise to oviducts; Müllerian ducts.

parametrium (părāmēt'rīum) *n.* [Gk. *para*, beside; *metra*, womb.] Fibrous tissue partly surrounding uterus.

paramitome (păr'āmītōm) *n.* [Gk. *para*, beside; *mitos*, thread.] Interfilar substance of protoplasm.

paramitosis (păr'āmītō'sis) *n.* [Gk. *para*, beside; *mitos*, thread.] Nuclear division, as in protozoa, in which the chromosomes are not regularly arranged on equator of spindle and tend to cohere at one end when separating.

paramorph (păr'āmōrf) *n.* [Gk. *para*, beside; *morphe*, form.] Any variant form or variety; a form induced by environmental factors without genetically produced changes; *cf.* phenocopy.

paramylon (părām'ilōn) *n.* [Gk. *para*, beside; *amylon*, starch.] A substance allied to starch, occurring in certain algae and flagellates; paramylum.

paranasal (părănā'zāl) *a.* [Gk. *para*, beside; *L. nasus*, nose.] *Appl.* air-sinuses in maxilla, frontal, ethmoid, sphenoid, and palatine bones.

paranema (păr'ănē'mā) *n.* [Gk. *para*, beside; *nema*, thread.] Paraphysis of cryptogams.

paranemic (părănē'mik) *a.* [Gk. *para*, beside; *nema*, thread.] Having spirals not interlocked, as in sister chromatids; anorthospiral. *Opp.* plectonemic, orthospiral.

paranephric (părănēf'rik) *a.* [Gk. *para*, beside; *nephros*, kidney.] Beside the kidney; *appl.* a fatty body behind renal fascia.

paranephrocyte, —*see* athrocyte.

paranephros (părănēf'rōs) *n.* [Gk. *para*, beside; *nephros*, kidney.] An adrenal body.

paranota (părănō'tā) *n. plu.* [Gk. *para*, beside; *noton*, back.] Lateral expansions of arthropod notum or tergum, believed to have developed into wings during evolution of insects.

paranuclein (părănū'klein) *n.* [Gk. *para*, beside; *L. nucleus*, kernel.] The substance of a true nucleolus; pyrenin.

paranucleus (părănū'kleūs) *n.* [Gk. *para*, beside; *L. nucleus*, kernel.] A micronucleus; a spherical mass of mitochondria; formerly nebkern; an aggregation of mitochondria in the spermatid destined to form axial filament envelope.

para-oesophageal (păr'ăēsōfāj'ēāl) *a.* [Gk. *para*, beside; *oisophagos*, gullet.] *Appl.* nerves connecting tritocerebrum with suboesophageal ganglion; para-esophageal.

parapet (păr'ăpēt) *n.* [It. *parare*, to guard; *petto*, breast.] A circular fold of body wall below margin of disc in sea-anemones.

paraphototropism, —Paraheliotropism, *q.v.*

paraphyll (pär'áfil) *n.* [Gk. *para*, beside; *phyllon*, leaf.] One of the branching chlorophyll-containing outgrowths arising between leaves or from their bases, in mosses.

paraphysis (päráf'isis) *n.* [Gk. *para*, beside; *physis*, growth.] A slender filamentous epidermal outgrowth occurring among sporogenous organs; a protective or nutritive interascal hypha; a non-sexual hypha; a basidium; one of the marginal projections of the pygidium in Coccidae; a non-nervous outgrowth on top of brain of nearly all vertebrates.

parapineal (päráp'ín'ěál) *a.* [Gk. *para*, beside; L. *pinea*, pine-cone.] *Appl.* parietal organ of epiphysis, eye-like in cyclostomes and some reptiles, pineal body of other vertebrates.

paraplast (pär'áplázm) *n.* [Gk. *para*, beside; *plasma*, mould.] Vegetative or less active part of cell substance; originally, ectoplasm; *cf.* metaplast.

parapleuron (pär'áplóor'ón) *n.* [Gk. *para*, beside; *pleuron*, side.] Episternum of metathorax, or of mesothorax and metathorax, in insects; parapteron of insects; parapleurum.

parapodium (pärápó'diüm) *n.* [Gk. *para*, beside; *pous*, foot.] A paired lateral locomotory structure on body-segments of polychaetes; lateral extension of foot, for propulsion, as in Pteropoda and certain Nudi-branchiata.

parapolar (pärápó'lär) *a.* [Gk. *para*, beside; *polos*, pivot.] Beside the pole; *appl.* first two trunk cells in development of Rhombozoa.

parapophysis (pär'ápóf'isis) *n.* [Gk. *para*, beside; *apo*, from; *physis*, growth.] A transverse process arising from a vertebral centrum.

parapostgenal (pär'ápóstjé'nál) *a.* [Gk. *para*, beside; L. *post*, after; *gena*, cheek.] *Appl.* thickened portion of occiput in insects.

paraproct (pär'áprókt) *n.* [Gk. *para*, beside; *proktos*, anus.] A plate

situated on each side of anus in Diplopoda and some insects; podical plate.

paraprostate (pär'áprós'tát) *n.* [Gk. *para*, beside; L. *pro*, before; *stare*, to stand.] Anterior bulbo-urethral glands; superior Cowper's glands of Leydolph.

parapsid (päráp'sid) *a.* [Gk. *para*, beside; *hapsis*, arch.] *Appl.* skull with single vacuity, bounded by parietal, postorbital and squamosal.

parapsidal,—*pert.* parapsis; *appl.* furrows or sutures between dorsal portion of mesonotum and the parapsides in Hymenoptera.

parapsides,—*plu.* of parapsis.

parapsis (päráp'sis) *n.* [Gk. *para*, beside; *hapsis*, arch.] Lateral portion of mesonotum, as in ants.

parapteron (päráp'térón) *n.* [Gk. *para*, beside; *pteron*, wing.] Tegula, shoulder-lappet, or scapula of insect mesothorax; pennae humerales of birds; parapterum.

parapyles (päráp'ilēz) *n. plu.* [Gk. *para*, beside; *pylis*, little gate.] Two accessory openings in certain developing Radiolaria.

paraquadrata (pärákwód'rát) *n.* [Gk. *para*, beside; L. *quadratus*, squared.] The squamosal, a hammer-shaped investing bone supporting the suspensorium externally.

pararectal (pärärék'tál) *a.* [Gk. *para*, beside; L. *rectus*, straight.] Beside rectum; *appl.* fossa, lymph glands.

parasematic (pär'ásēmát'ik) *a.* [Gk. *para*, beside; *sema*, sign.] *Appl.* markings, structures, or behaviour tending to mislead or deflect attack by an enemy.

paraseme (pär'ásēm) *n.* [Gk. *para*, beside; *sema*, sign.] Misleading appearance or marking, as an ocellus near tail of fishes.

paraseptal (pärásěp'tál) *a.* [Gk. *para*, beside; L. *septum*, partition.] *Appl.* cartilage more or less enclosing vomeronasal organ.

parasexual (pär'ásěk'süál) *a.* [Gk. *para*, compared with; L. *sexus*, sex.] *Appl.* or *pert.* the operation of genetic recombination other than by

means of the alternation of karyogamy and meiosis characteristic of sexual reproduction.

parasite (pār'āsīt) *n.* [Gk. *parasitos*, from *para*, beside; *sitos*, food.] An organism living with or within another to its own advantage in food or shelter.

parasitic (pārāsīt'ík) *a.* [Gk. *parasitos*, parasite.] *Appl.* an organism living at expense of another, and in or on it.

parasitic castration, — castration caused by presence of a parasite, as in male crabs infested by *Sacculina*.

parasitism (pār'āsītizm) *n.* [Gk. *parasitos*, parasite.] A form of symbiosis in which one symbiont, or parasite, receives advantage to detriment of other, or host.

parasitoid (pār'āsītoid) *n.* [Gk. *parasitos*, parasite; *eidōs*, form.] An organism alternately parasitic and free-living.

parasitology (pār'āsītōl'ōjī) *n.* [Gk. *parasitos*, parasite; *logos*, discourse.] The science treating of plant and animal parasites.

parasphenoid (pārāsēfē'noid) *n.* [Gk. *para*, beside; *sphen*, wedge; *eidōs*, form.] Membrane bone forming floor of cranium in certain vertebrates.

paraspore (pār'āspōr) *n.* [Gk. *para*, beside; *sporos*, seed.] A spore formed from a cortical cell, in certain algae.

parastemon (pārāstēmōn) *n.* [Gk. *para*, beside; *stemon*, thread.] A sterile stamen; parastamen; staminodium, *q.v.*

parasternalia (pārāstērnā'liā) *n. plu.* [Gk. *para*, beside; *sternon*, breast.] Abdominal ribs or gastralia.

parasternum (pārāstēr'nūm) *n.* [Gk. *para*, beside; *L. sternum*, breast-bone.] The sum-total of abdominal ribs in certain reptiles, also in *Stegoccephali* and *Archaeopteryx*.

parastichy (pārās'tīkī) *n.* [Gk. *para*, beside; *stichos*, row.] A secondary spiral in phyllotaxis.

parastipes (pār'āstī'pēs) *n.* [Gk. *para*, beside; *L. stipes*, stalk.] Subgalea or inner sclerite of insect stipes.

parasympathetic (pār'āsīmpāthēt'ík) *a.* [Gk. *para*, beside; *sympathēs*, of like feelings.] Enteral; *appl.* the craniosacral portion of the autonomic nervous system.

parasygnapsis, — parasyndesis, *q.v.*

parasyndesis (pār'āsīn'dēsīs) *n.* [Gk. *para*, beside; *syndesis*, binding together.] Syndesis where homologous chromosomes conjugate lengthwise.

parately (pārāt'ēlī) *n.* [Gk. *para*, beside; *telos*, end.] Evolution from material unrelated to that of type, but resulting in superficial resemblance.

paraterminal (pār'ātēr'mīnāl) *a.* [Gk. *para*, beside; *L. terminus*, boundary.] *Appl.* bodies constituting part of anterior median wall of lateral ventricles, in amphibians and reptiles.

paratestis (pār'ātēs'tīs) *n.* [Gk. *para*, beside; *L. testis*, testicle.] Small reddish-yellow fatty body in male tritons, — produces autacoids regulating appearance of nuptial apparel.

parathecium (pār'āthē'siūm) *n.* [Gk. *para*, beside; *theke*, box.] Peripheral layer of apothecium, as in cup fungi; peripheral hyphal layer in lichens.

parathormone, — parathyrin.

parathyreoid, — parathyroid.

parathyrin (pār'āthī'rīn) *n.* [Gk. *para*, beside; *thyreos*, shield.] Principle of internal secretion of parathyroids, which regulates calcium and phosphorus metabolism; parathormone.

parathyroid (pār'āthī'roid) *n.* [Gk. *para*, beside; *thyreos*, shield; *eidōs*, form.] One of four small brownish-red endocrine glands near the thyroid.

paratoid (pār'ātoid) *a.* [Gk. *para-teinein*, to extend along.] *Appl.* a double row of poison glands extending along back of certain amphibians, as of *Salamandra*.

paratomy (pārāt'ōmī) *n.* [Gk. *para*, beside; *tome*, cutting.] Reproduction by fission with antecedent regeneration, in certain annelids. *Opp.* architomy.

paratonic (pärätön'ík) *a.* [Gk. *para*, beside; *tonos*, strain.] Stimulating or retarding; *appl.* movements induced by external stimuli, as tropisms and nastic movements, *opp.* autonomic.

paratracheal (pär'äträkē'äl) *a.* [Gk. *para*, beside; L.L. *trachia*, wind-pipe.] With xylem parenchyma cells around or close to vascular tissue.

paratrophic (pär'ätröf'ík) *a.* [Gk. *para*, beside; *trephein*, to nourish.] *Appl.* method of nutrition of obligatory parasites.

paratype (pär'ätíp) *n.* [Gk. *para*, beside; *typos*, pattern.] Specimen described at same time as the one regarded as type of a new genus or species; aggregate of external factors affecting manifestation of a genetic character; abnormal type of a species, as of bacterial colony.

para-urethral (päräü'rē'thräl) *a.* [Gk. *para*, beside, *ourethra*, from *ouron*, urine.] *Appl.* racemose glands of the urethra, Litté's glands, Skene's glands.

paravertebral (pär'äver'tebräl) *a.* [Gk. *para*, beside; L. *vertebra*, vertebra.] Alongside the spinal column; *appl.* sympathetic nerve trunk.

paravesical (pärävēs'ikäl) *a.* [Gk. *para*, beside; L. *vesica*, bladder.] Beside the bladder; *appl.* a fossa or depression of peritoneum.

paraxial (päräk'siäl) *a.* [Gk. *para*, beside; L. *axis*, axle.] Alongside the axis; *appl.* a medial column of mesoderm.

paraxon (päräk'sön) *n.* [Gk. *para*, beside; *axon*, axle.] A lateral branch of the axis-cylinder process of a nerve cell.

paraxonic (pär'äksön'ík) *a.* [Gk. *para*, beside; *axon*, axle.] *Pert.* or having an axis outwith the usual axis; with axis of foot between third and fourth digits, as in Artiodactyla.

parazoon (pär'äzō'ön) *n.* [Gk. *para*, beside; *zoon*, animal.] Any of the Porifera or sponges.

parencephalon (pär'énkēf'älön, -sēf-) *n.* [Gk. *para*, beside; *engkephalos*, brain.] One of paired cerebral hemispheres.

parenchyma (pärēng'kimä) *n.* [Gk. *para*, beside; *engchyma*, infusion.] Plant-tissue, generally soft and of thin-walled relatively undifferentiated cells, which may vary in structure and function, as pith, of mesophyll, etc.; ground-work tissue of organs.

parenchymalia (pärēng'kimä'liä) *n. plu.* [Gk. *para*, beside; *engchyma*, infusion.] Spicules of parenchyma of Hexactinellida.

parenchymatous (pärēngkim'ätüs) *a.* [Gk. *para*, beside; *engchyma*, infusion.] *Pert.* or found in parenchyma; *appl.* a kind of cell.

parenchymula (pärēngkim'ülä) *n.* [Gk. *para*, beside; *engchyma*, infusion.] A flagellate sponge larva with cavity filled with gelatinous connective tissue

parental generation,---see P₁.

parenteral (pärēn'tēräl) *a.* [Gk. *para*, beside; *enteron*, gut.] *Appl.* injections administered otherwise than by way of alimentary canal.

parhomology (pär'hömöl'óji) *n.* [Gk. *para*, beside; *homos*, alike; *logos*, discourse.] Apparent similarity of structure.

parichnos (pärík'nös) *n.* [Gk. *para*, beside; *ichnos*, trace.] Two lateral scars at sides of vascular bundle trace in certain extinct ferns.

paries (pär'tēz) *n.* [L. *paries*, wall.] The central division of a compartment of Cirripedia; wall of a hollow structure, as of tympanum, or of honey-comb.

parietal (pär'i'etäl) *a.* [L. *paries*, wall.] *Pert.* or forming part of wall of a structure; *appl.* cells, membrane, layer, lobe, placentation, area between frons and occiput in insects, etc.

parietal bone,—a paired bone of roof of skull.

parietal organ,—epiphyseal photo-receptor in lower vertebrates; parapineal organ.

parietal region,—pineal region of brain.

parietal vesicle,—dilated distal part of pineal stalk.

parietes (pāri'ētēz) *n. plu.* [L. *parietes*, walls.] *Plu.* of paries; walls or sides of structures.

parietobasilar (pāri'ētöbāz'īlār) *a.* [L. *paries*, wall; *basis*, base.] *Appl.* muscles between pedal disc and lower part of body-wall in sea-anemones.

parietofrontal (pāri'ētöfrün'tāl) *a.* [L. *paries*, wall; *frons*, forehead.] *Appl.* a skull bone, in place of parietals and frontals, as in Dipnoi.

parietomastoid (pāri'ētömās'toid) *a.* [L. *paries*, wall; Gk. *mastos*, breast; *eidōs*, form.] Connecting mastoid with parietal; *appl.* a suture.

parieto-occipital (pāri'ētö-öksip'itāl) *a.* [L. *paries*, wall; *occiput*, back of head.] *Appl.* fissure between parietal and occipital lobes of cerebrum.

parietotemporal (pāri'ētötēm'pörāl) *a.* [L. *paries*, wall; *tempora*, the temples.] *Pert.* parietal and temporal regions; *appl.* a branch of the middle cerebral artery.

parietovaginal (pāri'ētövāj'ināl) *a.* [L. *paries*, wall; *vagina*, sheath.] *Appl.* paired muscle for retracting introvert and tentacles in Bryozoa.

paripinnate (pār'ipin'āt) *a.* [L. *par*, equal; *pinnā*, wing.] Pinnate without a terminal leaflet.

parivincular (pār'ivink'ülār) *a.* [L. *par*, equal; *vinculum*, bond.] *Appl.* bivalve hinge ligament attached to nymphae; *cf.* opisthodetic.

paroccipital (pāröksip'itāl) *a.* [Gk. *para*, beside; L. *occiput*, back of head.] *Appl.* ventrally - directed processes of exoccipitals.

parocciput (pārök'sipüt) *n.* [Gk. *para*, beside; L. *occiput*, back of head.] In insects, a thickening of the occiput for articulation of neck sclerites.

paroeious (pārē'siūs) *a.* [Gk. *para*, beside; *oikia*, house.] With antheridium and archegonium close to one another; paroicous.

parolfactory (pār'ölfāk'tōri) *a.* [Gk. *para*, beside; L. *olfactorius*, olfactory.] *Appl.* an area and sulcus adjoining olfactory trigone of rhinencephalon.

paronychial (pār'önik'īā) *n. plu.* [Gk. *para*, beside; *onyx*, nail.] Bristles on pulvillus of insect foot; whitlow.

paroophoron (pār'ödf'örōn) *n.* [Gk. *para*, beside; *oon*, egg; *pherein*, to bear.] A few scattered rudimentary tubules, remnants of Wolffian body in female, in broad ligament between uterus and epoophoron.

parosteal (pārös'tēāl) *a.* [Gk. *para*, beside; *osteon*, bone.] *Appl.* abnormal bone formations.

parosteosis (pār'östēō'sis) *n.* [Gk. *para*, beside; *osteon*, bone.] Bone formation in tracts normally fibrous.

parotic (pāröt'ik) *n.* [Gk. *para*, beside; *ous*, ear.] A process formed by fusion of exoccipital and opisthotic in adult lizards.

parotid glands,—paired salivary glands opening into mouth cavity of mammals.

parotoid glands,—in some amphibians, large swellings on side of head, formed of aggregated cutaneous glands, sometimes poisonous.

parovarium (pār'övä'riūm) *n.* [Gk. *para*, beside; L. *ovarium*, ovary.] A small collection of tubules anterior to ovary, the remnant in adult of embryonic mesonephros; pampiniform body; epoophoron, *q.v.*

pars (pärz) *n.* [L. *pars*, part.] A part of an organ, as pars glandularis, nervosa, intermedia, tuberalis, of pituitary gland. *Plu.* partes.

parthenapogamy (pār'thēnāpög'-āmī) *n.* [Gk. *parthenos*, virgin; *apo*, away; *gamos*, marriage.] Diploid or somatic parthenogenesis; ooapogamy.

parthenita (pārthēn'itā) *n.* [Gk. *parthenos*, virgin.] Unisexual stage of trematodes in intermediate host.

parthenocarp (pār'thēnōkār'pī) *n.* [Gk. *parthenos*, virgin; *karpos*, fruit.] Condition of producing fruit without seeds, or of having parthenocarpic fruits.

parthenocaryogamy, — partheno-karyogamy.

parthenogamy (pâr'thênôg'âmî) *n.* [Gk. *parthenos*, virgin; *gamos*, marriage.] Parthenomixis, *q.v.*

parthenogenesis (pâr'thênôjên'êsîs) *n.* [Gk. *parthenos*, virgin; *genesis*, descent.] Reproduction without fertilisation by a male element.

parthenogenetic (pâr'thênôjênêt'îk) *a.* [Gk. *parthenos*, virgin; *genesis*, descent.] *Appl.* plants or animals developed from seed or ovum without fertilisation by pollen or spermatozoon; *appl.* reagents which can activate ovum. *Opp.* zyogenetic.

parthenogonidia (pâr'thênôgônîd'-iâ) *n. plu.* [Gk. *parthenos*, virgin; *gonos*, offspring; *idion*, *dim.*] Zooids of a protozoan colony, with function of asexual reproduction.

parthenokaryogamy (pâr'thênô-kâr'îôg'âmî) *n.* [Gk. *parthenos*, virgin; *karyon*, nucleus; *gamos*, marriage.] The fusion of two female haploid nuclei.

parthenomixis (pâr'thênômîk'sîs) *n.* [Gk. *parthenos*, virgin; *mixis*, mingling.] The mingling of two nuclei produced within one gamete or gametangium; parthenogamy.

parthenosperm (pâr'thênôspêrm) *n.* [Gk. *parthenos*, virgin; *sperma*, seed.] A sperm produced without fertilisation, but resembling a zygote.

parthenospore (pâr'thênôspôr) *n.* [Gk. *parthenos*, virgin; *sporos*, seed.] Azygospore, *q.v.*

parthenote (pâr'thênôt) *n.* [Gk. *parthenos*, virgin.] A parthenogenetically produced haploid organism.

partial veil,—inner veil of certain fungi, growing from stipe towards edge of pileus and becoming separated to constitute the cortina or superior annulus.

particulate inheritance, — inheritance in one organism of distinctive paternal and maternal characteristics.

partite (pâr'tît) *a.* [L. *partitus*, divided.] Divided nearly to base.

parturition (pârtûrîsh'ûn) *n.* [L.

parturire, to bring forth.] The act or process of birth.

parumbilical (pâr'ûmbîl'îkâl) *a.* [Gk. *para*, beside; L. *umbilicus*, navel.] Beside the navel; *appl.* small veins from anterior abdominal wall to portal and iliac veins.

pascual (pâs'kûâl) *a.* [L. *pascuum*, pasture.] *Pert.* pastures or ground for grazing; *appl.* flora.

passage-cells, — thin-walled endodermal or exodermal cells of root, which permit passage of solutions.

patagial (pâtâj'îâl) *a.* [L. *patagium*, border.] Of or *pert.* a patagium.

patagiate (pâtâj'îât) *a.* [L. *patagium*, border.] Furnished with a patagium.

patagium (pâtâj'îûm) *n.* [L. *patagium*, border.] Membranous expansion between fore and hind limbs of bats, and flying squirrels and foxes; similar expansion in lizards and on bird's wing; tegula, or dorsal process of prothorax in certain Lepidoptera; anterior pronotum in Diptera.

patella (pâtêl'â) *n.* [L. *patella*, small pan.] The knee-cap or elbow-cap; segment between femur and tibia in Pycnogonida; fourth segment or carpodite of spider's leg; a limpet; a rounded apothecium of lichens.

patellar (pâtêl'âr) *a.* [L. *patella*, small pan.] *Pert.* a patella.

patelliform (pâtêl'îfôrm) *a.* [L. *patella*, small pan; *forma*, shape.] Shaped like a patella; pan-shaped; like a bordered disc; patellaroid.

patent (pât'ênt) *a.* [L. *patens*, lying open.] Open; spreading widely, *opp.* fastigiate; expanded.

pateriform (pât'erîfôrm) *a.* [L. *patera*, flat dish; *forma*, shape.] Saucer-shaped.

pathetic (pâthêt'îk) *a.* [Gk. *pathos*, feeling.] *Appl.* trochlear nerve and superior oblique muscle of eye.

pathogen (pâth'ôjên) *n.* [Gk. *pathos*, suffering; *-genes*, producing.] Any disease-producing micro-organism.

pathogenic (pâth'ôjên'îk) *a.* [Gk. *pathos*, suffering; *-genes*, producing.] Disease-producing; *appl.* a parasite in relation to a particular host.

pathology (páthōl'ōjī) *n.* [Gk. *pathos*, suffering; *logos*, discourse.] Science dealing with disease and with morbid structures and functions.

patina (pāt'inā) *n.* [L. *patina*, dish.] Circles of plates round calyx of crinoids.

patriclinous (pāt'rikli'nūs) *a.* [L. *pater*, father; Gk. *klinein*, to incline.] With hereditary characteristics more paternal than maternal; patroclinic, patroclinal.

patulent (pāt'ülént), **patulous** (pāt'ülūs) *a.* [L. *patulus*, standing open.] Spreading open; expanding.

paturon (pātūrōn) *n.* [Gk. *patein*, to trample on; *oura*, after part.] Basal joint of arachnid chelicerae, used for crushing and expressing fluids of insects.

paucilocular (pō'silōk'ülār) *a.* [L. *pauci*, few; *loculus*, compartment.] Containing, or composed of, few small cavities or loculi.

paucispiral (pō'sispī'rāl) *a.* [L. *pauci*, few; *spira*, coil.] With few coils or whorls.

pauospore (pōl'ospōr) *n.* [Gk. *paula*, rest; *sporos*, seed.] A resting stage in development, as a cyst; chlamydospore, *q.v.*

paunch (pōnsh) *n.* [L. *pantex*, paunch.] The rumen, an expansion of oesophagus, first stomach of ruminants.

paurometabolism (pō'rōmētābolizm) *n.* [Gk. *pauros*, brief; *metabolē*, change.] Incomplete metamorphosis in which the nymph resembles the adult.

pavement (pāv'mēnt) *n.* [L. *pavimentum*, from *pavire*, to ram down.] A flat structure of compact units; *appl.* epithelium of flat, nucleated scales in mosaic pattern, simple squamous epithelium; *appl.* teeth, as in certain sharks. *a.* Pavimental.

paxilla (pāksil'ā) *a.* [L. *paxillus*, peg.] Thick plate supporting calcareous pillars, summit of each covered by group of small spines, in certain Stelleroids; paxillus.

paxillar (pāksil'ār) *a.* [L. *paxillus*, peg.] *Pert.* a paxilla.

paxillate,—having paxillae; paxilliferous, paxillose.

paxilliform (pāksil'ifōrm) *a.* [L. *paxillus*, peg; *forma*, shape.] Shaped like a paxilla.

paxillus,—paxilla, *q.v.*; a genus of agarics.

pearl (pērl) *n.* [F. *perle*, pearl.] In shells of some Mollusca, an abnormal growth formed with a grain of foreign matter or a minute organism for nucleus and many thin layers of nacre surrounding it.

pectase (pēk'tās) *n.* [Gk. *pektos*, congealed.] An enzyme of plants which forms vegetable jelly.

pecten (pēk'tēn) *n.* [L. *pecten*, comb.] Any comb-like structure; a process of inner retinal surface in reptiles, expanded into a folded quadrangular plate in birds; a ridge of superior ramus of os pubis; a part of stridulating organ of certain spiders; sensory abdominal appendage of scorpions; the scallop; a sterigma.

pectic (pēk'tik) *a.* [Gk. *pektos*, congealed.] *Appl.* substances in cell-walls and cell-sap of plants, including pectic acid and its salts, pectin, and pectose; *appl.* enzymes: pectosinase, pectase, and pectinase, which hydrolyse pectic substances.

pectinal (pēk'tināl) *a.* [L. *pecten*, comb.] *Pert.* a pecten.

pectinate (pēk'tināt) *a.* [L. *pecten*, comb.] Comb-like; pectiniform; *appl.* leaves, arrangement of sporangia, a ligament of iris, certain gills, pedicellariae of Asteroidea, a septum between corpora cavernosa, fibres, etc.

pectineal (pēktin'ēāl) *a.* [L. *pecten*, comb.] *Appl.* process of pubis of birds; *appl.* a ridge-line on femur and attached muscle.

pectinellae (pēk'tinēl'ē) *n. plu.* [L. *pectinella*, small comb.] Transverse, comb-like membranelles constituting adoral ciliary spiral of some infusoria.

pectines (pēk'tinēz) *n. plu.* [L. *pecten*, comb.] *Plu.* of pecten, *q.v.*

pectineus,—a flat muscle between pecten pubis and upper medial part of femur.

pectiniform,—pectinate.

pectinirhomb (pěk'tinirõmb') *n.* [L. *pecten*, comb; Gk. *rhombos*, wheel.] A type of stereom-folding in Cystidea.

pectocellulose (pěk'tõsěl'ulõs) *n.* [Gk. *pektos*, congealed; L. *cellula*, small cell.] Cellulose mixed with pectose, as in fleshy roots and fruits.

pectoral (pěk'tõrål) *a.* [L. *pectus*, breast.] *Pert.* chest; in chest region; *appl.* arch, girdle, fins, etc.

pectoralis major and minor,—outer and inner chest muscles connecting ventral chest wall with shoulder and humerus.

pectose (pěk'tõs) *n.* [Gk. *pektos*, congealed.] A carbohydrate constituent of plant cell-walls, converted into pectin and cellulose by action of pectosinase.

pectus (pěk'tûs) *n.* [L. *pectus*, breast.] The chest or breast region; fused pleuron and sternum of arthropods.

pedal (pěd'ål) *a.* [L. *pes*, foot.] *Pert.* foot or feet; *appl.* cords, ganglia, glands, etc.

pedalifer (pědål'fēr) *n.* [*pedon*; *alumen*; *ferrum*.] Any of a group of soils, in humid regions, usually characterised by the presence of aluminium and iron compounds, and by the absence of carbonates.

pedate (pěd'åt) *a.* [L. *pes*, foot.] Pedatipartite; with toe-like parts.

pedatipartite (pědåt'ipår'tit) *a.* [L. *pes*, foot; *partitus*, divided.] *Appl.* a variety of palmate leaf with cymose branching of third order.

pedatisect (pědåt'isěkt) *a.* [L. *pes*, foot; *sectus*, cut.] In pedate arrangement, and with divisions nearly to midrib.

pedicel (pěd'isěl) *n.* [L. *pediculus*, small foot.] A small, short foot-stalk of leaf, flower, fruit, or sporangium; foot-stalk or stem of stationary or fixed organism, or of organ, as optic; second segment of insect antenna; pedicellus.

pedicellariae (pěd'isělår'fē) *n. plu.* [L. *pediculus*, small foot.] Minute pincer-like structures studding the surface of certain echinoderms.

pedicellate (pěd'isělåt) *a.* [L. *pediculus*, small foot.] Supported by a pedicel or petiole; *appl.* Hymenoptera with stalked abdomen; *cf.* pseudosessile.

pedicellus (pěd'isěl'ûs) *n.* [L. *pediculus*, small foot.] A short foot-stalk; second joint of insect antennae; pedicel.

pedicle (pěd'ikl) *n.* [L. *pediculus*, small foot.] A short stem; backward-projecting vertebral process; narrow stalk uniting cephalothorax with abdomen in arachnids.

pedipalpus (pěd'ipål'pûs) *n.* [L. *pes*, foot; *palpare*, to feel.] In Arachnoidea, second cephalothoracic paired appendage, variously a pincer-like claw, a simple or leg-like appendage, a chelate structure.

pedocal (pěd'okål) *n.* [*pedon*; *calcium*.] Any of a group of soils, of semi-arid and arid regions, characterised by the presence of carbonate of lime.

pedogamy (pědõg'amì) *n.* [Gk. *pais*, child; *gamos*, union.] Paedogamy, *q.v.*

pedogenesis,—paedogenesis, *q.v.*

pedogenic (pědõjën'ik) *a.* [Gk. *pedon*, soil; *gennaein*, to produce.] *Pert.* the formation of soil.

pedology (pědõl'õji) *n.* [Gk. *pedon*, soil; *logos*, discourse.] Soil science; *cf.* edaphology.

pedonic (pědõn'ik) *a.* [Gk. *pedon*, ground.] *Appl.* organisms of fresh-water lake-bottom.

peduncle (pědũng'kl) *n.* [L. *pedunculus*, small foot.] A stem or stalk, supporting flower or fruit; a band of white fibres joining different parts of brain; stalk of crinoids, brachiopods and barnacles; link between thorax and abdomen in arthropods; stalk of sedentary protozoa.

pedunculate (pědũng'kulåt) *a.* [L. *pedunculus*, small foot.] Growing on or having a peduncle; *appl.*

bodies, groups of association cells and fibres of protocerebrum in insects, highly developed in Hymenoptera; *appl.* hydatid or appendix of epididymis; pediferous.

pelage (pěl'áj) *n.* [F. *pelage*, fur.] The hairy, furry, or woolly coat of mammals.

pelagic (pěláj'ík) *a.* [Gk. *pelagos*, sea.] Ocean-inhabiting.

pelagic (pělás'jík) *a.* [Gk. *Pelagikos*, *pert.* Pelasgians.] Moving from place to place.

pellagra-preventive factor,—niacin.

pellicle (pěl'íkl) *n.* [L. *pellicula*, small skin.] The delicate protective investment of protozoa; any filmy protective covering; pellicula.

pelliculate (pělík'ülát) *a.* [L. *pellicula*, small skin.] Having a pellicle on external surface.

pellions (pěl'íonz) *n. plu.* [Gk. *pella*, cup; *dim.*] Ring of plates supporting suckers of echinoids; rosettes.

pelma (pěl'mä) *n.* [Gk. *pelma*, sole.] The sole of foot; planta.

pelophilous (pělöf'ilüs) *a.* [Gk. *pelos*, clay; *philein*, to love.] Growing on clay.

peloria (pělör'riä) *n.* [Gk. *pelorios*, monstrous.] Condition of abnormal regularity; a modification of structure from irregularity to regularity.

peloric (pělör'ík) *a.* [Gk. *pelorios*, monstrous.] *Appl.* a flower which, normally irregular, becomes regular.

peloton (pěl'ötöng) *n.* [F. *peloton*, ball of thread.] A knot or skein of hyphae, as in a mycorrhiza.

pelta (pěl'tä) *n.* [Gk. *pelte*, shield.] The shield-like apothecium of certain lichens.

peltate (pěl'tät) *a.* [Gk. *pelte*, shield.] Shield-shaped; fastened to stalk at a point within margin, as a leaf.

peltinervate (pěl'tinēr'vāt) *a.* [Gk. *pelte*, shield; L. *nervus*, nerve.] Having veins radiating from near the centre, as of a peltate leaf.

pelvic (pěl'vík) *a.* [L. *pelvis*, basin.]

Pert. or situated at or near pelvis; *appl.* girdle, cavity, fin, limbs, plexus, etc.

pelvis (pěl'vís) *n.* [L. *pelvis*, basin.] The bony cavity formed by pelvic girdle along with coccyx and sacrum; expansion of ureter at its junction with kidney; basal portion of cup of crinoids.

pelvisternum (pěl'vistēr'nüm) *n.* [L. *pelvis*, basin; L. *sternum*, breast-bone.] Epipubis separate from pubis.

pen (pén) *n.* [L. *penna*, feather.] A leaf midrib; gladius of certain Cephalopoda.

pendent (pén'dént) *a.* [L. *pendens*, hanging down.] Hanging down, as certain lichens, leaves, flowers, etc.

pendulous (pén'dülüs) *a.* [L. *pendere*, to hang.] Bending downwards from point of origin; overhanging; *appl.* ovules, branches, flowers, etc.

penes,—*plu.* of penis.

penetrance (pén'etráns) *n.* [L. *penetrare*, to penetrate.] The frequency, measured as a percentage, with which a gene shows any effect.

penial (pē'niäl) *a.* [L. *penis*, penis.] Of or *pert.* penis.

penial setae,—paired needle-like chitinous bodies at nematode anus; setae near aperture of vas deferens in earthworms.

penicillate (pén'ísil'ät) *a.* [L. *penicillum*, painter's brush.] Penicilliform; pencil-shaped; tipped with hairs; having a structure like a camel-hair or bottle brush.

penicillus (pén'ísil'üs) *n.* [L. *penicillus*, painter's brush.] A brush-shaped structure, as certain type of nematocyst; tuft of hairs of tegumen; a tuft of arterioles, in spleen; a tuft of conidiophores. *Plu.* penicilli.

penis (pē'nís) *n.* [L. *penis*, penis.] The male copulatory organ.

pennaceous (pēnā'shüs) *a.* [L. *penna*, feather.] Penniform; like a plume or feather; *appl.* feathers with hamuli on barbules, *opp.* plumose.

pennate,—pinnate.

Pennsylvanian (pĕn'silvā'nĭăn) *a.* [*Pennsylvania*.] *Appl.* and *pert.* an epoch of the Carboniferous era; *appl.* fossils in North American coalmeasures.

pensile (pĕn'sil) *a.* [*L. pensilis*, hanging down.] Pendent; hanging down; *appl.* some bird's-nests.

pentacapsular (pĕn'tākāp'sulār) *a.* [*Gk. pente*, five; *L. capsula*, capsule.] With five capsules.

pentacarpellary (pĕn'tākār'pĕlārĭ) *a.* [*Gk. pente*, five; *karpōs*, fruit.] With five carpels.

pentachenium (pĕn'tākĕ'nĭŭm) *n.* [*Gk. pente*, five; *a*, not; *chainein*, to gape.] A form of schizocarp with five carpels.

pentacoccous (pĕn'tākōk'ūs) *a.* [*Gk. pente*, five; *kōkkos*, kernel.] With five seeds or carpels.

pentacrinoïd (pĕn'tākrinoïd') *a.* [*Gk. pente*, five; *krinon*, lily; *eidos*, form.] Resembling a Pentacrinus; *appl.* larval stage of feather-stars.

pentactinal (pĕn'tāk'tināl) *a.* [*Gk. pente*, five; *aktis*, ray.] Five-rayed; five-branched.

pentacula (pĕn'tākū'lā) *n.* [*Gk. pente*, five; *L. aculeus*, prickle.] In life-history of echinoderms, the stage with five tentacles.

pentacyclic (pĕn'tāsĭk'lik) *a.* [*Gk. pente*, five; *kyklos*, circle.] Arranged in five whorls.

pentadactyl (pĕn'tādāk'til) *a.* [*Gk. pente*, five; *daktylos*, finger.] Having all four limbs normally terminating in five digits.

pentadelphous (pĕn'tādĕl'fūs) *a.* [*Gk. pente*, five; *adelphos*, brother.] Having five clusters of more or less united filaments.

pentafid (pĕn'tāfid) *a.* [*Gk. pente*, five; *L. findere*, to cleave.] In five divisions or lobes.

pentagonal (pĕn'tāg'ōnāl) *a.* [*Gk. pente*, five; *gonia*, angle.] *Appl.* symmetry of a pentamerous flower; quinary; having five angles.

pentagynous (pĕn'tāj'inūs) *a.* [*Gk. pente*, five; *gynē*, woman.] Having five styles.

pentamerous (pĕntām'ērūs) *a.* [*Gk. pente*, five; *meros*, part.] Composed of five parts; in whorls of five or a multiple of five.

pentandrous (pĕntān'drūs) *a.* [*Gk. pente*, five; *aner*, male.] Having five stamens.

pentapetalous (pĕn'tāpĕt'ālūs) *a.* [*Gk. pente*, five; *petalon*, leaf.] Having five petals.

pentaploid (pĕn'tāploïd) *a.* [*Gk. pente*, five; *haploos*, simple; *eidos*, form.] With five sets of chromosomes; having five times the monoploid chromosome number.

pentapterous (pĕntāp'tĕrūs) *a.* [*Gk. pente*, five; *pteron*, wing.] With five wings, as some fruits.

pentarch (pĕn'tārk) *a.* [*Gk. pente*, five; *archē*, beginning.] With five alternating xylem and phloem groups.

pentasepalous (pĕn'tāsĕp'ālūs) *a.* [*Gk. pente*, five; *F. sépale*, sepal.] Having five sepals.

pentasternum (pĕn'tāstĕr'nŭm) *n.* [*Gk. pente*, five; *sternon*, chest.] Sternite of fifth segment of prosoma or third segment of podosoma in Acarina.

pentastichous (pĕntās'tikūs) *a.* [*Gk. pente*, five; *stichos*, row.] Arranged in five vertical rows.

pepo (pĕp'ō) *n.* [*Gk. pépon*, melon.] An inferior one-celled, many-seeded pulpy fruit, as of Cucurbitaceae.

pepsin (pĕp'sin) *n.* [*Gk. pépsis*, digestion.] An enzyme secreted by stomach, acting, with hydrochloric acid, on proteins; also secreted by some insectivorous plants.

peptic (pĕp'tik) *a.* [*Gk. péptein*, to digest.] Relating to or promoting digestion; *appl.* pepsin-secreting glands of stomach.

peptonephridia (pĕp'tōnĕfrīd'ĭā) *n. plu.* [*Gk. pépsis*, digestion; *nephros*, kidney.] The anterior nephridia which function as digestive glands, of some Oligochaeta.

peraeopods,—perciopods.

percnosome (pĕrk'nōsōm) *n.* [*Gk. perknos* dark; *soma*, body.]

Deeply - staining granule of an androcyte, possibly a chromatoid accessory body.

percurrent (pĕrkūr'ĕnt) *a.* [L. *percurrents*, running through.] Extending throughout length, or from base to apex.

pereion (pĕrī'ōn) *n.* [Gk. *peraion*, to convey.] The thorax of Crustacea.

pereiopods (pĕrī'ōpōdz) *n. plu.* [Gk. *peraion*, to convey; *pous*, foot.] The locomotory thoracic limbs of Malacostraca; trunk-legs.

perennation (pĕr'ĕnā'shūn) *n.* [L. *per*, through; *annus*, year.] Condition of living for a number of years.

perennial (pĕrĕn'iāl) *a.* [L. *per*, through; *annus*, year.] Persisting through the year, or for a number of years.

perennibranchiate (pĕrĕn'ibrāng'-kiāt) *a.* [L. *per*, through; *annus*, year; *branchiae*, gills.] Having gills persisting throughout life, as certain amphibians.

perfect (pĕr'fĕkt) *a.* [L. *perfectus*, finished.] Complete; *appl.* flower with both stamens and pistil; *appl.* fungi producing sexual spores.

perfoliate (pĕrfō'liāt) *a.* [L. *per*, through; *folium*, leaf.] *Appl.* a leaf with basal lobes so united as to appear as if stem ran through it.

perforate (pĕr'fōrāt) *a.* [L. *perforare*, to bore through.] Having pores, as corals, foraminifera. some leaves; *appl.* certain areas of brain perforated by small blood-vessels.

perforation plate,—perforate septum or area of contact between cells or elements of wood-vessels.

perforator (pĕr'fōrāt'ōr) *n.* [L. *perforare*, to bore through.] A barbed spear-like head and process of some spermatozoa, as of salamander.

perforatorium (pĕr'fōrātō'riūm) *n.* [L. *perforare*, to bore through.] The acrosome, *q.v.*; acrosome with galea capitis.

perhydridase (pĕrhī'dridās) *n.* [L. *per*, through; Gk. *hydor*, water.]

An enzyme which causes activation of perhydride hydrogen.

perianth (pĕr'iānth) *n.* [Gk. *peri*, around; *anthos*, flower.] A floral envelope; external floral whorls, including calyx and corolla; cover or ring of cells surrounding archegonium in Marchantiales.

periblast (pĕr'iblāst) *n.* [Gk. *peri*, around; *blastos*, bud.] The outside layer, epiblast, or blastoderm of an insect embryo.

periblastesis (pĕr'iblās'tēsīs) *n.* [Gk. *peri*, around; *blaste*, growth.] Envelopment by surrounding tissue, as of lichen gonidia.

periblastic (pĕriblās'tik) *a.* [Gk. *peri*, around; *blastos*, bud.] *Pert.* periblast; superficial, as *appl.* segmentation.

periblastula (pĕr'iblās'tulā) *n.* [Gk. *peri*, around; *blastos*, bud.] A blastula resulting from periblastic segmentation.

periblem (pĕr'iblēm) *n.* [Gk. *peri*, around; *blema*, coverlet.] Layers of ground or fundamental tissue between dermatogen and plerome of growing points.

peribranchial (pĕr'ibrāng'kiāl) *a.* [Gk. *peri*, around; *branchia*, gills.] Around gills; *appl.* type of gemmation in ascidians; *appl.* atrial cavity in ascidians and lancelet; *appl.* circular spaces surrounding basal parts of papulae of Asteroidea.

peribulbar (pĕr'ibūl'bār) *a.* [Gk. *peri*, around; L. *bulbus*, bulb.] Surrounding the eye-ball; perigemmal, *q.v.*

pericapillary (pĕr'ikāpil'āri) *a.* [Gk. *peri*, around; L. *capillus*, hair.] *Appl.* cells in contact with outer surface of wall of capillaries, as fibroblasts, histiocytes, pericytes, Rouget cells.

pericardiac, -pericardial.

pericardial (pĕr'ikār'diāl) *a.* [Gk. *peri*, around; *kardia*, heart.] *Pert.* pericardium; surrounding heart; *appl.* cavity, septum; *appl.* paired excretory glands in lamellibranchs; *appl.* cells: cords of nephrocytes in certain insects.

pericardium (pěr'ikâr'diũm) *n.* [Gk. *peri*, around; *kardia*, heart.] The cavity containing heart; membrane enveloping heart.

pericarp (pěr'ikârp) *n.* [Gk. *peri*, around; *karpós*, fruit.] The ovary walls of fruits; a fruit covering.

pericellular (pěr'isêl'ũlâr) *a.* [Gk. *peri*, around; *L. cellula*, small cell.] Surrounding a cell; *appl.* net of glial origin surrounding a neurocyton.

pericemental,—periodontal.

pericentral (pěr'isên'trâl) *a.* [Gk. *peri*, around; *L. centrum*, centre.] Around or near centre; *appl.* auxiliary cells, as in certain algae.

pericentric (pěr'isên'trik) *a.* [Gk. *peri*, around; *kentron*, centre.] *Appl.* breaks in arms of a chromosome on either side of centromere; *appl.* inversions including the centromere, *opp.* paracentric; heterobrachial.

perichaetial (pěr'ikê'shiâl, -tiâl) *a.* [Gk. *peri*, around; *chaite*, hair.] *Pert.* perichaetium; *appl.* leaves.

perichaetine (pěr'ikê'tin) *a.* [Gk. *peri*, around; *chaite*, hair.] Having a ring of chaetae or setae encircling the body.

perichaetium (pěr'ikê'shiũm, -tiũm) *n.* [Gk. *peri*, around; *chaite*, hair.] One of membranes or leaves enveloping archegonia or antheridia of bryophytes.

perichondral (pěr'ikôn'drâl) *a.* [Gk. *peri*, around; *chondros*, cartilage.] *Appl.* ossification in cartilage from without inwards; *cf.* endochondral.

perichondrium (pěr'ikôn'driũm) *n.* [Gk. *peri*, around; *chondros*, cartilage.] A fibrous membrane that covers cartilages.

perichordal (pěr'ikôr'dâl) *a.* [Gk. *peri*, around; *chorde*, cord.] Enveloping or near the notochord.

perichoroidal (pěr'ikôroid'âl) *a.* [Gk. *peri*, around; *chorion*, skin; *eidós*, form.] Surrounding the choroid; *appl.* lymph-space; perichoroidal.

perichrome (pěr'ikrôm) *a.* [Gk. *peri*, around; *chroma*, colour.] Having Nissl bodies arranged near

periphery of nerve cell body, as in molecular layer of cerebellar cortex.

perichylous (pěr'iki'lũs) *a.* [Gk. *peri*, around; *chylós*, juice.] With water-storage cells outside chlorenchyma.

pericladium (pěr'iklâ'diũm) *n.* [Gk. *peri*, around; *klados*, branch.] The lowermost clasping portion of a sheathing petiole.

periclinal (pěr'ikli'nâl) *a.* [Gk. *peri*, around; *klinein*, to bend.] *Appl.* system of cells parallel to surface of apex of a growing point; *appl.* graft hybrids or chimaerae with inner tissue of one species surrounded by epidermis of the other.

periclinium (pěr'iklin'iũm) *n.* [Gk. *peri*, round; *kline*, bed.] The involucre of a composite flower.

pericranium (pěr'ikrá'nĩũm) *n.* [Gk. *peri*, around; *kranion*, skull.] Fibrous membrane investing skull; periosteum of skull.

pericycle (pěr'isi'kl) *n.* [Gk. *peri*, around; *kyklos*, circle.] The external layer of stele, the layer between endodermis and conducting tissues.

pericyte (pěr'isit) *n.* [Gk. *peri*, around; *kytos*, hollow.] A macrophage in adventitia of small blood vessels; a pericapillary cell; Rouget cell.

pericytial (pěr'isit'ial) *a.* [Gk. *peri*, around; *kytos*, hollow vessel.] Surrounding a cell; pericellular.

peridental (pěr'idên'tâl) *a.* [Gk. *peri*, around; *L. dens*, tooth.] Periodontal; investing a tooth.

periderm (pěr'idêrm) *n.* [Gk. *peri*, around; *derma*, skin.] The outer layer of bark; phellogen, phellem, and phelloderm collectively; epiphloem; external cuticular layer of Hydrozoa; cell layer of epidermis shed later; epitrichium of mammals.

peridesm (pěr'idêzm) *n.* [Gk. *peri*, around; *desme*, bundle.] Tissue surrounding a vascular bundle.

peridesmium (pěr'idês'miũm) *n.* [Gk. *peri*, around; *desmos*, band.] Tissue surrounding a ligament.

peridial (pērīd'īāl) *a.* [Gk. *peri-dion*, small wallet.] *Pert.* a peridium.

perididymis (pēr'īdīd'īmīs) *n.* [Gk. *peri*, around; *didymos*, testicle.] The tunica albuginea or fibrous covering of testis.

peridiolum (pērīd'īōlūm) *n.* [*Dim.* of Gk. *peridion*, small wallet.] A small peridium or collection of spores enclosed within peridial covering; peridiole.

peridium (pērīd'īūm) *n.* [Gk. *peri-dion*, small wallet.] The coat investing the sporophore of fungi, outer covering of a sporangium; cortex of sterile hyphae.

peridural (pēr'īdū'rāl) *a.* [Gk. *peri*, around; L. *durus*, hard.] *Appl.* perimeningeal space at later stage of development.

perienteric (pēr'īēntēr'īk) *a.* [Gk. *peri*, around; *enteron*, gut.] Surrounding the enteron.

perienteron (pēr'īēn'tērōn) *n.* [Gk. *peri*, around; *enteron*, gut.] A cavity surrounding the enteron; visceral cavity in embryo.

perifoliary (pēr'īfō'liārī) *a.* [Gk. *peri*, around; L. *folium*, leaf.] Round a leaf margin.

perigamium,—perichaetium.

periganglionic (pēr'īgāng'gliōn'īk) *a.* [Gk. *peri*, around; *ganglion*, little tumour.] Surrounding a ganglion; *appl.* glands or calcareous bodies, or glands of Swammerdam, paired outgrowths of prolonged saccus endolymphaticus, on each side of vertebral column, as in frog.

perigastric (pēr'īgās'trīk) *a.* [Gk. *peri*, around; *gaster*, stomach.] Surrounding the viscera; *appl.* abdominal cavity.

perigastrum (pēr'īgās'trīūm) *n.* [Gk. *peri*, round; *gaster*, stomach.] The body cavity or coelom.

perigastrula (pēr'īgās'troolā) *n.* [Gk. *peri*, round; *gaster*, stomach.] The gastrula resulting after superficial segmentation.

perigemmal (pēr'ījēm'āl) *a.* [Gk. *peri*, around; L. *gemma*, bud.] Surrounding a taste-bud; *appl.* nerve fibres, spaces.

perigenous (pērīj'ēnūs) *a.* [Gk. *peri*, around; *-genes*, producing.] Borne or growing on all sides of an organism or structure; amphigenous, *q.v.*

perigonadial (pēr'īgōnād'īāl) *a.* [Gk. *peri*, around; *gone*, seed.] Surrounding the gonads; *appl.* cavity: the gonocoel.

perigonium (pēr'īgō'nīūm) *n.* [Gk. *peri*, around; *gone*, seed.] A floral envelope or perianth; involucre round antheridium of mosses; a gonotheca; perigone.

perigynium (pēr'ījīn'īūm) *n.* [Gk. *peri*, around; *gyne*, female.] Membranous envelope or marsupium of archegonium in liverworts; involucre in mosses; fruit-investing utricle of *Carex*.

perigynous (pērīj'īnūs) *a.* [Gk. *peri*, around; *gyne*, female.] Having sepals, petals, stamens round the gynoeceum.

perigygy (pērīj'īnī) *n.* [Gk. *peri*, around; *gyne*, female.] Arrangement in a perigynous manner.

perihæmal (pēr'ihē'māl) *a.* [Gk. *peri*, around; *haima*, blood.] *Appl.* blood-vascular system of canals and spaces of Echinoderma; *appl.* dorsal outgrowths of third body-cavity of Enteropneusta.

perikaryon (pēr'īkār'īōn) *n.* [Gk. *peri*, around; *karyon*, nucleus.] Protoplasm surrounding nucleus in nerve cell body; *cf.* cyton.

perilymph (pēr'īlīm'f) *n.* [Gk. *peri*, round; L. *lymphā*, water.] A fluid separating membranous from osseous labyrinth of ear.

perimedullary (pēr'īmēdūl'ārī) *a.* [Gk. *peri*, around; L. *medulla*, marrow.] Surrounding the pith of a stem; *appl.* a zone.

perimeningeal (pēr'īmēnīn'jēāl) *a.* [Gk. *peri*, around; *meninx*, membrane.] *Appl.* a space between endorhachis and meninx primitiva or spinal cord envelope.

perimetrium (pēr'īmē'trīūm) *n.* [Gk. *peri*, around; *metra*, womb.] The peritoneal covering of the uterus.

perimysium (pēr'ímíz'íūm) *n.* [Gk. *peri*, around; *mys*, muscle.] Connective tissue binding numbers of fibres into bundles and muscles, and continuing into tendons; alternatively, *appl.* only to fasciculi envelopes; *cf.* epimysium.

perinaeal (pēr'inē'āl) *a.* [Gk. *perinaion*, part between anus and scrotum.] *Pert.* perinaeum; *appl.* artery, body, nerve, gland; perineal.

perinaeum (pēr'inē'ūm) *n.* [Gk. *perinaion*, part between anus and scrotum.] A surface of body limited by scrotum or vulva in front, anus behind, and laterally by medial side of thigh; perineum.

perine,—perinium.

perinephrium (pēr'inēf'ríūm) *n.* [Gk. *peri*, around; *nephros*, kidney.] The enveloping tissue of kidney.

perineural (pēr'inū'rāl) *a.* [Gk. *peri*, around; *neuron*, nerve.] Surrounding a nerve or nerve-cord; *appl.* a ventral sinus in some insects.

perineurium (pēr'inū'ríūm) *n.* [Gk. *peri*, around; *neuron*, nerve.] The tubular sheath of a small bundle of nerve fibres.

perineuronal (pēr'inū'rōnāl) *a.* [Gk. *peri*, around; *neuron*, nerve.] Surrounding a nerve cell or nerve cells.

perinium (pērín'íūm) *n.* [Gk. *peri*, around; *is*, fibre.] An epispore, or outer microspore-coating of certain Pteridophyta.

periodicity (pēr'íōdís'ítí) *n.* [Gk. *períodos*, circuit.] The fulfilment of functions at regular periods or intervals; rhythm.

periodontal (pēr'íōdōn'tāl) *a.* [Gk. *peri*, around; *odous*, tooth.] Covering or surrounding a tooth; *appl.* membrane, etc.

perioesophageal (pēr'íē'sōfāj'ēāl) *a.* [Gk. *peri*, around; *oisophagos*, gullet.] Surrounding oesophagus; *appl.* a nerve ring.

periople (pēriōp'lē) *n.* [Gk. *peri*, round; *ople*, hoof.] Thin outer layer of the hoof of equines.

periopticon (pēr'íōp'tikōn) *n.* [Gk. *peri*, round; *opsis*, sight.] In

insects, the zone of optic lobes nearest the eye.

periosteum (pēr'íōs'tēūm) *n.* [Gk. *peri*, around; *osteon*, bone.] The fibrous membrane investing the surface of bones.

periostacum (pēr'íōs'trākūm) *n.* [Gk. *peri*, around; *ostrakon*, shell.] The chitinous external layer of most mollusc and brachiopod shells.

periotic (pēr'íōt'ík) *n.* [Gk. *peri*, around; *ous*, ear.] A cranial bone enclosing parts of membranous labyrinth of internal ear.

peripetalous (pēr'ípēt'ālūs) *a.* [Gk. *peri*, around; *petalon*, leaf.] Surrounding petals or petaloid structure.

peripharyngeal (pēr'ífārín'jēāl) *a.* [Gk. *peri*, around; *pharynx*, gullet.] Encircling or surrounding pharynx; *appl.* cilia of ascidians and lancelet.

peripheral (pēr'ífēr'ērāl) *a.* [Gk. *peripherein*, to move round.] Distant from centre; near circumference; *appl.* end-organs of nerves, nervous system.

peripherical (pēr'ífēr'íkāl) *a.* [Gk. *peripherein*, to move round.] *Appl.* an embryo more or less completely surrounding endosperm in seed.

periphoem (pēr'ífō'ēm) *n.* [Gk. *peri*, around; *phloios*, smooth bark.] Phloem-sheath; pericambium.

periphloic (pēr'íflo'ík) *a.* [Gk. *peri*, around; *phloios*, inner bark.] *Pert.* periphloem; having phloem outside centric xylem, *appl.* bundles; amphiphloic. *Opp.* perixylic.

periphoranthium (pēr'ífōrān'thíūm) *a.* [Gk. *peri*, around; *pherein*, to bear; *anthos*, flower.] Involucre of Compositae.

periphorium (pēr'ífō'ríūm) *n.* [Gk. *peri*, around; *pherein*, to bear.] Fleshy structure supporting ovary, and to which stamens and corolla are attached.

periphyllum,—lodicule.

periphysis (pēr'íf'ísís) *n.* [Gk. *peri*, around; *physis*, growth.] In certain fungi, a filament branching from an hymenium without asci.

periphyton (pěr'ífi'tôn) *n.* [Gk. *peri*, around; *phyton*, plant.] The plants and animals adhering to parts of rooted aquatic plants.

peripileic (pěr'ípíl'eík) *a.* [Gk. *peri*, around; *L. pileus*.] *Pert.* or arising from the marginal region of a pileus.

periplasm (pěr'íplázm) *n.* [Gk. *peri*, around; *plasma*, mould.] The region of an oogonium outside the oosphere, in fungi; centropasm or zone around the aster; cytoplasm surrounding yolk of centrolecithal ova.

periplasmodium (pěr'íplázmō'diŭm) *n.* [Gk. *peri*, around; *plasma*, model, *eidos*, form.] Protoplasmic mass, derived from tapetal cells and enclosing developing spores.

periplast (pěr'íplást) *n.* [Gk. *peri*, around; *plastos*, moulded.] Centrosome; attraction-sphere; ectoplasm of flagellates; pellicle covering ectoplasm; inter-cellular substance or stroma of tissues.

peripneustic (pěr'ínū'stik, -pnū-) *a.* [Gk. *peri*, around; *pneustikos*, *pert.* breathing.] Having stigmata arranged along sides of body, normal in insect larvae.

peripodial (pěr'ípō'diāl) *a.* [Gk. *peri*, around; *pous*, foot.] *Appl.* membrane covering wing-bud of insects.

periportal (pěr'ípōr'tāl) *a.* [Gk. *peri*, around; *L. porta*, gate.] *Pert.* transverse fissure of the liver; *appl.* connective tissue partially separating lobules and forming part of the hepatobiliary capsule of Glisson.

periproct (pěr'íprōkt) *n.* [Gk. *peri*, round; *proktos*, anus.] The surface immediately surrounding anus of echinoids.

perisarc (pěr'ísārk) *n.* [Gk. *peri*, around; *sarx*, flesh.] The tough outer membrane of Hydrozoa.

periscleral (pěr'ísklē'rāl) *a.* [Gk. *peri*, around; *skleros*, hard.] *Appl.* lymph-space external to sclera of eye.

perisome (pěr'ísōm) *n.* [Gk. *peri*, around; *soma*, body.] A body-

wall; integument of echinoderms.

perisperm (pěr'ispěrm) *n.* [Gk. *peri*, around; *sperma*, seed.] The remains of nucellus of ovule when it is not all absorbed during development of embryo; pericarp of a seed.

perisphere (pěr'ísfēr) *n.* [Gk. *peri*, around; *sphaira*, ball.] Outer region of centrosphere.

perispiracular (pěr'ísprāk'ulār) *a.* [Gk. *peri*, around; *L. spiraculum*, air-hole.] Surrounding a spiracle; *appl.* glands with oily secretion, in certain aquatic insect larvae; peristigmatic.

perisporangium (pěr'ispōrān'jiŭm) *n.* [Gk. *peri*, around; *sporos*, seed; *angeion*, vessel.] Membrane covering a sorus; indusium of ferns.

perispore (pěr'ispōr) *n.* [Gk. *peri*, around; *sporos*, seed.] Spore-covering; transient outer membrane enveloping a spore; perisporium; mother cell in algal spores.

perissodactyl (pěr'ísōdāk'til) *a.* [Gk. *perissos*, odd; *daktylos*, finger.] With uneven number of digits.

peristalsis (pěr'ístāl'sis) *n.* [Gk. *peri*, around; *stellein*, to draw in.] Movement of muscular tubes, as of digestive tract, by means of successive contractions in a definite, usually anteroposterior, direction.

peristaltic (pěr'ístāl'tik) *a.* [Gk. *peri*, around; *stellein*, to draw in.] *Appl.* movement by means of successive contractions of muscular walls of tubular structures.

peristasis (pěr'ís'tāsís) *n.* [Gk. *peri*, around; *stasis*, standing.] Environment, including physiological action within the organism, vital to development of a particular genotype.

peristatic (pěr'ístāt'ik) *a.* [Gk. *peri*, around; *stasis*, standing.] *Pert.* or influenced by peristasis.

peristethium (pěr'ístē'thiŭm) *n.* [Gk. *peri*, round; *stethos*, chest.] An insect mesosternum.

peristigmatic,—perispiracular, *q.v.*

peristome (pěr'istōm) *n.* [Gk. *peri*, around; *stoma*, mouth.] The region surrounding mouth; used in connection with mosses, Vorticella, Actinozoa, annulates, insects.

perisystole (pěr'isís'tölē) *n.* [Gk. *peri*, around; *systole*, drawing together.] The interval elapsing between diastole and systole of heart.

perithecium (pěr'ithē'siūm) *n.* [Gk. *peri*, around; *thēke*, case.] A flask-shaped ascocarp with a terminal ostiole; pyrenocarp.

perithelium (pěr'ithē'liūm) *n.* [Gk. *peri*, around; *thēle*, nipple.] Connective tissue associated with capillaries.

peritoneal (pěr'itōnē'āl) *a.* [Gk. *periteinein*, to stretch round.] *Pert.* peritoneum; *appl.* cavity, fossa, membrane, etc.; *appl.* funnel: coelostome of archinephros.

peritoneum (pěr'itōnē'ūm) *n.* [Gk. *periteinein*, to stretch round.] A serous membrane partly applied to abdominal walls, partly reflected over contained viscera.

peritreme (pěr'itrēm) *n.* [Gk. *peri*, around; *trema*, hole.] Margin of a shell-opening; small plate perforated by spiracle-opening in ticks and insects; peritrema.

peritrichous (pěr'itrikūs) *a.* [Gk. *peri*, around; *thrix*, hair.] Having adoral band of cilia arranged in a spiral as in Vorticella; having several flagella attached laterally, as in certain bacteria; surrounding a hair follicle, *appl.* nerve endings; peritrichal, peritrichic.

peritrochium (pěr'itrōk'īūm) *n.* [Gk. *peri*, round; *trochos*, wheel.] A ciliary band; a circularly ciliated larva.

peritrophic (pěr'itrōf'ik) *a.* [Gk. *peri*, round; *trophe*, food.] *Appl.* a fold of membrane in mid-gut of insects and to space between it and gut lining; *appl.* mycorrhiza with special fungal populations on root surfaces.

perittogamy (pěr'itōg'āmi) *n.* [Gk. *perittos*, extraordinary; *gamos*,

marriage.] Random plasmogamy of undifferentiated cells in gametophytes.

periurethral (pěr'īūrē'thrāl) *a.* [Gk. *peri*, round; *ourethra*, from *ouron*, urine.] Surrounding the urethra; *appl.* glands, homologues of prostate.

perivascular (pěr'ivās'kūlār) *a.* [Gk. *peri*, around; L. *vasculum*, small vessel.] Surrounding the vascular cylinder; *appl.* fibres; surrounding the blood-vessels; *appl.* lymph channels.

perivisceral (pěr'ivīs'ērāl) *a.* [Gk. *peri*, around; L. *viscera*, bowels.] Surrounding the viscera; *appl.* body cavity.

perivitelline (pěr'ivitel'īn) *a.* [Gk. *peri*, around; L. *vitellus*, yolk of egg.] Surrounding the yolk of an egg; *appl.* space between ovum and zona pellucida.

perixylic (pěr'izi'lik) *a.* [Gk. *peri*, around; *xylon*, wood.] Having xylem outside centric phloem, *appl.* bundles; amphixylic. *Opp.* periphloic.

perizonium (pěr'izōn'īūm) *n.* [Gk. *peri*, around; *zone*, girdle.] The membrane or siliceous wall enveloping the auxospore or zygote in diatoms.

permanent cartilage, — cartilage which remains unossified throughout life, *opp.* temporary.

permanent teeth, — set of teeth developed after milk or deciduous dentition; second set of most, third set of some, first set of other mammals.

permanent tissue, — tissue consisting of cells which have completed their period of growth and subsequently change little until they lose their protoplasm and die.

permeants (pěr'mēānts) *n. plu.* [L. *permeare*, to pass through.] Animals which move freely from one community or habitat to another.

Permian (pěr'miān) *a.* [*Perm*, E. Russia.] *Pert.* late period of Palaeozoic era, following the Carboniferous.

peronate (pēr'ōnāt) *a.* [L. *peronatus*, hide-booted.] Covered with woolly hairs; surrounded by volva, *appl.* stipe; powdery or mealy externally.

peroneal (pērōnē'āl) *a.* [Gk. *perone*, fibula.] *Pert.*, or lying near, the fibula; *appl.* artery, nerve, retinacula, tubercle.

peroneotibial (pērōnē'ōtib'īāl) *a.* [Gk. *perone*, fibula; L. *tibia*, tibia.] In region of fibula and tibia; *appl.* certain muscles

peroneus (pērōnē'ūs) *n.* [Gk. *perone*, fibula.] Two lateral muscles of the leg, longus and brevis, and an anterior muscle, tertius; peronaeus.

peronium (pērō'nīūm) *n.* [Gk. *perone*, fibula.] In Trachomedusae, one of the mantle-rivets, or cartilaginous processes ascending from disc margin towards centre.

peropod (pērōpōd) *a.* [Gk. *peros*, defective; *pous*, foot.] With rudimentary limbs.

peroral (pērō'rāl) *a.* [L. *per*, through; *os*, mouth.] *Appl.* a membrane formed by concrescence of rows of cilia, in infusoria.

peroxidase (pērōk'sidās) *n.* [L. *per*, through; Gk. *oxys*, sharp.] An enzyme which causes activation of peroxide oxygen.

perradius (pēr'rā'diūs) *n.* [L. *per*, through; *radius*, radius.] One of four primary radii of coelenterates.

perseveration (pēr'sēvērā'shūn) *n.* [L. *perseverare*, to persist.] Tendency of a set of neurones to remain in a state of excitation; persistent response after cessation of original stimulus.

persistent (pērsis'tēt) *a.* [L. *per-sistere*, to persevere.] Remaining attached till maturation, as a corolla; *appl.* teeth with continuous growth; *appl.* organs or parts in adult which normally disappear with larval stage or youth, as gills.

person (pēr'sōn) *n.* [L. *persona*, person.] An individual or zooid of a colony.

perisolate (pēr'sōnāt) *a.* [L. *personatus*, masked.] Masked; *appl.* a corolla of two lips, closely

approximated and with a projection of the lower closing the throat of the corolla.

perspiration (pēr'spīrā'shūn) *n.* [L. *per*, through; *spirare*, to breathe.] Exudation or excretion through pores of skin.

perthophyte (pēr'thōfit) *n.* [Gk. *perthai*, to destroy; *phyton*, plant.] A parasitic fungus that obtains nourishment from host tissues after having killed them by a poisonous secretion.

pertusate (pērtū'sāt) *a.* [L. *pertusus*, thrust through.] Pierced at apex.

perula (pēr'ulā) *n.* [L. *perula*, little wallet.] A leaf-bud scale.

pervalvar (pērvāl'vār) *a.* [L. *per*, through; *valvae*, folding-doors.] Dividing a valve longitudinally.

pervious (pēr'vīūs) *a.* [L. *pervius*, passable.] Perforated; permeable; *appl.* nostrils with no septum between nasal cavities.

pes (pēz) *n.* [L. *pes*, foot.] A foot, base, or foot-like structure, as certain parts of brain, branches of facial nerve.

pessulus (pēs'ulūs) *n.* [L. *pessulus*, bolt.] An internal skeletal element in syrinx of some birds.

petal (pēt'āl) *n.* [Gk. *petalon*, leaf.] One of the parts of a corolla; expanded part of ambulacral areas of certain Echinoidea.

petaliform (pēt'ālifōrm) *a.* [Gk. *petalon*, leaf; *forma*, shape.] Petal-shaped; petal-like, petaloid, petaline.

petalled (pēt'āld) *a.* [Gk. *petalon*, leaf.] With petals; petaliferous, *opp.* apetalous.

petalody (pētālō'dī) *n.* [Gk. *petalon*, leaf; *eidos*, form.] Conversion of other parts of a flower into petals.

petaloid (pēt'āloid) *a.* [Gk. *petalon*, leaf; *eidos*, form.] Like a petal; *appl.* perianth; *appl.* pileus; *appl.* ambulacral areas of certain echinoderms.

petaloideous (pēt'āloid'ēūs) *a.* [Gk. *petalon*, leaf; *eidos*, form.] Petaloid; *appl.* monocotyledons with coloured perianth.

- petasma** (pēt'āsmā) *n.* [Gk. *petasma*, anything spread out.] A complicated membranous plate on inner side of peduncle with interlocking coupling hooks, an apparatus of certain Crustacea.
- petiolar** (pēt'iolār) *a.* [L. *petiolus*, small foot.] *Pert.*, having, or growing on, a small stalk.
- petiolate** (pēt'iolāt) *a.* [L. *petiolus*, small foot.] Growing on, or provided with, a petiole; having thorax and abdomen connected by a petiole.
- petiole** (pēt'iol) *n.* [L. *petiolus*, small foot.] The foot-stalk of a leaf; a slender stalk connecting thorax and abdomen in insects; a small sclerite at base of palpal organ in spiders; flattened and modified barb base in feathers.
- petiolule** (pēt'iolūl) *n.* [*Dim.* of L. *petiolus*, small foot.] The foot-stalk of a leaflet of a compound leaf.
- Petit's canal**,—*spatia zonularia*, *q.v.*
- petrification** (pēt'rifāk'shūn) *n.* [L. *petra*, rock; *facere*, to make.] Fossilisation through saturation by mineral matter in solution, subsequently turned to solid form.
- petrohyoid** (pēt'rōhī'oid) *a.* [Gk. *petros*, stone; *hyooides*, Y-shaped.] *Pert.* hyoid and petrous part of temporal.
- petromastoid** (pēt'rōmās'toid) *a.* [Gk. *petros*, stone; *mastos*, breast; *eidos*, form.] *Pert.* mastoid process and petrous portion of temporal.
- petro-occipital** (pēt'rō-ōksīp'itāl) *a.* [Gk. *petros*, stone; L. *occiput*, back of head.] *Pert.* occipital and petrous part of temporal; *appl.* a fissure.
- petrophyte** (pēt'rōfit) *n.* [Gk. *petros*, stone; *phylon*, plant.] A rock-plant.
- petrosal** (pēt'rō'sāl) *a.* [Gk. *petros*, stone.] Of compact bone; *appl.* a otic bones of fishes; *appl.* a sphenoidal process, to a ganglion of glossopharyngeal, to nerves and sinus in region of petrous portion of temporal bone; *appl.* bone, the petiotic.
- petrosphenoidal** (pēt'rōsfēnoid'āl) *a.* [Gk. *petros*, stone; *sphen*, wedge; *eidos*, form.] *Pert.* sphenoid and petrous part of temporal; *appl.* a fissure.
- petrosquamosal** (pēt'rōskwāmō'sāl) *a.* [Gk. *petros*, stone; L. *squama*, scale.] *Pert.* squamosal and petrous part of temporal; *appl.* sinus and suture; petrosquamous.
- petrotympanic** (pēt'rōtīmpān'ik) *a.* [Gk. *petros*, stone; *tympanon*, drum.] *Pert.* tympanum and petrous portion of temporal; *appl.* a fissure.
- petrous** (pēt'rūs) *a.* [Gk. *petros*, stone.] Very hard or stony; *appl.* a pyramidal portion of temporal bone between sphenoid and occipital; *appl.* a ganglion on its lower border; petrosal.
- Peyer's glands or patches** [*J. C. Peyer*, Swiss anatomist]. Agminated glands, roundish patches of aggregated lymphatic nodules on intestine walls.
- Pflüger's cords** [*E. F. W. Pflüger*, German physiologist]. Cell columns growing from the germinal epithelium into the stroma, and which give rise to gonads.
- pH**,—the negative value of the power to which 10 is raised in order to obtain the concentration of hydrogen ions in gram-molecules per litre, pH of a neutral solution being 7; pH of acid solutions is smaller than 7, pH of alkaline solutions being greater than 7.
- phacea** (fās'ēā) *n.* [Gk. *phakos*, lentil.] The crystalline lens of the eye.
- phacella** (fās'ēl'ā) *n.* [Gk. *phakelos*, bundle of faggots.] A delicate filament with mesogloea core, and supplied with stinging capsules, occurring in rows in stomach of certain coelenterates; gastric filament.
- phacocyst** (fāk'ōsist) *n.* [Gk. *phakos*, lentil, lens; *kystis*, bladder.] Transparent sac enclosing lens of eye; capsule of the lens, capsula lentis.
- phacoid** (fāk'oid) *a.* [Gk. *phakos*, lentil; *eidos*, form.] Lentil-shaped.
- phaeic**,—phaeochrous, *q.v.*
- phaeism** (fē'izm) *n.* [Gk. *phaios*, dusky.] Duskiness; *appl.* colouring of butterflies; incomplete melanism

phaenanthereous (fēnān'thērūs) *a.* [Gk. *phainein*, to show; *antheros*, flowering.] With anthers exerted; with stamens exerted.

phaeno-,—also *pheno-*.

phaenogam (fēn'ögām) *n.* [Gk. *phainein*, to show; *gamos*, marriage.] Phanerogam.

phaeochrome (fē'ōkrōm) *n.* [Gk. *phaios*, dusky; *chroma*, colour.] Chromophil; chromaffin.

phaeochromoblast (fē'ōkrō'inōblāst) *n.* [Gk. *phaios*, dusky; *chroma*, colour; *blastos*, bud.] Cell which develops into a phaeochromocyte or chromaffin cell.

phaeochrous (fē'ōkrō'ūs) *a.* [Gk. *phaios*, dusky; *chros*, colour.] Of dusky colour; *phaeic*.

phaeodium (fēō'diūm) *n.* [Gk. *phaios*, dusky; *eidos*, form.] In certain Radiolaria, an aggregation of food and excretory substances forming a mass round the central capsule aperture.

phaeomelanin (fē'ōmēl'ānin) *n.* [Gk. *phaios*, dusky; *melas*, black.] A brownish melanin; *cf.* eumelanin.

phaeophore,—phaecoplast.

phaeophyll (fē'ōfil) *n.* [Gk. *phaios*, dusky; *phyllon*, leaf.] The colouring matter of brown algae, a mixture of fucoxanthin, xanthophyll, chlorophyll, and carotene.

phaeophytin (fē'ōfi'tin) *n.* [Gk. *phaios*, dusky; *phyton*, plant.] Either of two blue-black pigments derived from chlorophylls *a* and *b* by removing magnesium.

phaeoplast (fē'ōplāst) *n.* [Gk. *phaios*, dusky; *plastos*, formed.] Chromoplast of brown seaweeds or Phaeophyceae.

phaeospore (fē'ōspōr) *n.* [Gk. *phaios*, dusky; *sporos*, seed.] A spore containing phaeoplasts.

phage (fāj) *n.* [Gk. *phagein*, to eat.] An agent causing destruction or lysis of micro-organisms; bacteriophage.

phagocytale (fāj'ōsī'tābl) *a.* [Gk. *phagein*, to eat; *kytos*, hollow.] *Appl.* bacteria rendered more easily ingested by leucocytes.

phagocyte (fāj'ōsit) *n.* [Gk. *phagein*, to eat; *kytos*, hollow.] A colourless blood-corpuscle which tends to ingest foreign particles; a root cell, with lobed nucleus, capable of digesting endotrophic fungal filaments.

phagocytic,—*pert.* phagocytes; *pert.* or effecting phagocytosis.

phagocytosis (fāj'ōsītō'sis) *n.* [Gk. *phagein*, to eat; *kytos*, hollow.] The ingestion and destruction of microparasites by phagocytes.

phagolysis (fājōl'isis) *n.* [Gk. *phagein*, to eat; *lysis*, loosing.] Dissolution of phagocytes.

phagozoite (fāj'ōzō'it) *n.* [Gk. *phagein*, to eat; *zoon*, animal.] An animal which feeds on disintegrating or dead tissue.

phalange (fāl'anj) *n.* [Gk. *phalangx*, line of battle.] A phalanx.

phalangeal (fālān'jēāl) *a.* [Gk. *phalangx*, line of battle.] *Pert.*, or resembling, phalanges; *appl.* bones, cells attached in rows to Corti's rods, etc.

phalanx (fāl'āngks) *n.*, **phalanges** (fāl'ānjēz) *plu.* [Gk. *phalangx*, line of battle.] Segments of digits of vertebrates; bundle of stamens united by filaments.

phallic (fāl'ik) *a.* [Gk. *phallos*, penis.] *Pert.* phallus; *appl.* gland secreting substance for spermatophores, as in certain insects.

phallomere (fāl'ōmēr) *n.* [Gk. *phallos*, penis; *meros*, part.] Penis valve, in insects.

phallosome (fāl'ōsōm) *n.* [Gk. *phallos*, penis; *soma*, body.] A structure of tissue from inner surface of basistyles and penis valves, in Culicidae; mesosome.

phallus (fāl'ūs) *n.* [Gk. *phallos*, penis.] The embryonic structure which becomes penis or clitoris; external genitalia of male insect; a genus of Basidiomycetes.

phanerocodonic (fān'ērōkōdōn'ik) *a.* [Gk. *phaneros*, manifest; *kodon*, bell.] *Appl.* detached and free-swimming zooids of a hydroid colony. *Opp.* adelocodonic.

phanerogam (fān'ērögām) *n.* [Gk. *phaneros*, manifest; *gamos*, marriage.] A plant with conspicuous flowers; anthophyte, phaenogam, spermatophyte. *Opp.* cryptogam.

phanerogamous (fānērög'āmūs) *a.* [Gk. *phaneros*, manifest; *gamos*, marriage.] *Appl.* plants with flowers containing pistils and stamens; phanerogamic.

phanerophyte (fān'ēröfit) *n.* [Gk. *phaneros*, manifest; *phyton*, plant.] Tree or shrub with aerial dormant buds; plant whose size is not appreciably less during cold or dry season.

phaoplankton (fā'öplängk'tön) *n.* [Gk. *phaos*, light; *planktos*, wandering.] Surface plankton, living at depths to which light penetrates.

phaosome (fā'ösöm) *n.* [Gk. *phaos*, light; *soma*, body.] An optic organelle in certain epidermal cells of annelids.

pharate (fā'rāt) *a.* [Gk. *pharos*, loose mantle.] *Appl.* instar within previous cuticle prior to ecdysis.

pharmacodynamics (fār'mäködī-nām'iks) *n.* [Gk. *pharmakon*, drug; *dynamis*, power.] The science of the action of drugs.

pharyngeal (fārin'jēäl) *a.* [Gk. *pharyngx*, gullet.] *Pert.* pharynx; *appl.* artery, membrane, nerve, tonsil, tubercle, veins, etc.; *appl.* nephridia, in certain worms.

pharyngobranchial (fāring'göbräng'-kiäl) *a.* [Gk. *pharyngx*, gullet; *branchia*, gills.] *Pert.* pharynx and gills; *appl.* certain bones of fishes.

pharyngopalatine (fāring'göpäl'ätfn) *a.* [Gk. *pharyngx*, gullet; *L. palatum*, palate.] *Pert.* pharynx and palate; *appl.* arch and muscle; palatopharyngeal.

pharyngotympanic (fāring'götīm-pän'ik) *a.* [Gk. *pharyngx*, gullet; *tympanon*, drum.] *Appl.* tube connecting pharynx and tympanic cavity, the auditory or Eustachian tube.

pharynx (fār'ingks) *n.* [Gk. *pharyngx*, gullet.] A musculo-membranous tube extending from under surface of skull to level of sixth cervical vertebra; gullet or anterior part of alimentary canal following buccal cavity.

phasmids (fās'midz) *n. plu.* [Gk. *phasma*, apparition; *dim.*] Caudal papillae in Nematoda, bearing pores connecting with glandular pouch.

phatne (fāt'nē) *n.* [Gk. *phatne*, manger.] Tooth socket or alveolus dentis; odontobothrion.

phellema (fêlēmā) *n.* [Gk. *phellos*, cork.] Cork; cork and non-suberised layers forming external zone of periderm; phellem.

phelloderm (fêl'ödërm) *n.* [Gk. *phellos* cork; *derma*, skin.] The secondary parenchymatous suberous cortex of trees, formed on inner side of cork-cambium.

phellogen (fêl'öjēn) *n.* [Gk. *phellos*, cork; *gennaein*, to generate.] The cork-cambium of tree stems, arising as a secondary meristem and giving rise to cork and phelloderm.

phelloid (fêl'oid) *a.* [Gk. *phellos*, cork; *eidōs*, form.] Cork-like. *n.* Non-suberised cell-layer in outer periderm.

phengophil (fēng'göfil) *a.* [Gk. *phenggos*, light; *philos*, friend.] Preferring light, *appl.* animals.

phengophobe (fēng'göföb) *a.* [Gk. *phenggos*, light; *phobos*, fear.] Shunning light, *appl.* animals.

phenocontour,—isophane, *q.v.*

phenocopy (fē'nököp'ī) *n.* [Gk. *phainein*, to appear; *F. copie*, copy, from *L.L. copia*, transcript.] A modification induced by environmental factors which parallels genetically produced changes; paramorph.

phenogam,—phanerogam, *q.v.*

phenological (fēnölöj'ikäl) *a.* [Gk. *phainein*, to appear; *logos*, discourse.] *Pert.* phenology; *appl.* isolation of species owing to differences in flowering or breeding season.

phenology (fēnōl'ōjī) *n.* [Gk. *phain-ein*, to appear; *logos*, discourse.] Recording and study of periodic biotic events, as of flowering, breeding, migration, etc., in relation to climatic and other factors; phenomenology.

phenotype (fēn'ōtīp) *n.* [Gk. *phain-ein*, to appear; *typos*, image.] The characters of an organism due to the response of genotypic characters to the environment; a group of individuals exhibiting the same phenotypic characters.

phenotypic (fēn'ōtīp'īk) *a.* [Gk. *phainein*, to show; *typos*, image.] *Pert.* phenotype, *appl.* characters arising from reaction to environmental stimulus.

pheo-,—see phaeo-.

pheron (fēr'ōn) *n.* [Gk. *pherein*, to bear.] The colloidal bearer of the active principle of an enzyme; *cf.* agon, symplex.

phialide (fī'ālīd) *n.* [Gk. *phiale*, bowl; *eidos*, form.] A flask-shaped outgrowth of spore-bearing hypha, in certain fungi; a sterigma; *cf.* metula.

phialiform (fīāl'īfōrm) *a.* [L. *phiala*, shallow cup; *forma*, form.] Cup-shaped; saucer-shaped; phialac-form.

phialophore (fīāl'īfōr) *n.* [Gk. *phiale*, bowl; *pherein*, to bear.] A hypha which bears a phialide.

phialopore (fīāl'īpōr) *n.* [Gk. *phiale*, bowl; *poros*, channel.] The opening in the hollow daughter colony or gonidium of Volvox.

phialospore (fīāl'īspōr) *n.* [Gk. *phiale*, bowl; *sporos*, seed.] A spore or conidium borne at tip of a phialide.

philotherm (fīl'ōthērm) *n.* [Gk. *philos*, loving; *therme*, heat.] A plant which completes life-cycle only in a warm environment. *Cf.* thermophil, thermophyte, therophyte.

philtrum (fīl'trūm) *n.* [Gk. *philttron*, philtre.] The depression on upper lip beneath septum of nose.

phlebenterism (flēbēn'tērīzm) *n.*

phleps, vein; *enteron*, intestine.] Condition of having branches of the intestine extending into other organs, as arms or legs.

phleboedesis (flēbē'dēsīs) *n.* [Gk. *phleps*, vein; *oidein*, to swell.] Condition of having circulatory system cavity so distended and insinuated as to diminish the coelom, especially so in molluscs.

phlobaphenes (flō'bāfēnz) *n. plu.* [Gk. *phloios*, inner bark; *baphe*, dye.] Compounds producing dark brown colour in fern roots.

phloem (flō'ēm) *n.* [Gk. *phloios*, inner bark.] Bast-tissue; the soft bast of vascular bundles, consisting of sieve-tube tissue.

phloem parenchyma,—thin-walled parenchyma associated with sieve-tubes of phloem.

phloem sheath,—pericycle, together with inner layer of a bundle sheath where latter consists of two layers.

phloeodic flēōd'īk) *a.* [Gk. *phloios*, inner bark; *eidos*, form.] Having the appearance of bark.

phloeoterma (flē'ōtēr'mā) *n.* [Gk. *phloios*, inner bark; *terma*, boundary.] Endodermis; innermost layer of cortex.

phloic (flō'īk) *a.* [Gk. *phloios*, inner bark.] *Pert.* phloem; *appl.* procambium that gives rise to phloem.

phobotaxis (fō'bōtāk'sīs) *n.* [Gk. *phobos*, manifest fear; *taxis*, arrangement.] Avoiding reaction; trial-and-error reaction.

pholadophyte (fōlād'ōfīt) *n.* [Gk. *pholas*, lurking; *phyton*, plant.] A plant living in hollows, shunning bright light.

pholidosis (fōl'īdō'sīs) *n.* [Gk. *pholis*, scale.] Scale arrangement of scaled animals.

phonation (fōnā'shūn) *n.* [Gk. *phone*, sound.] Production of sounds, *e.g.* by insects.

phonoreceptor (fō'nōrēsēp'tōr) *n.* [Gk. *phone*, sound; L. *receptor*, receiver.] A receptor of sound waves, as ear, certain sensillae.

phoranthium (fōrān'thīŭm) *n.* [Gk. *pherein*, to bear; *anthos*, flower.] The receptacle of composite plants.

phoresia (fōrē'siā) *n.* [Gk. *pherein*, to bear.] The carrying of one organism by another, without parasitism; *appl.* insects.

phoront (fōrōnt') *n.* [Gk. *phora*, producing; *on*, being.] Encysted stage produced by tomite and leading to formation of trophont in life cycle of Holotricha.

phorozooid (fōr'ōzō'oid) *n.* [Gk. *pherein*, to bear; *zoon*, animal; *eidos*, form.] Foster forms of Doliolum buds, never sexually mature but set free with gonozooids attached to a ventral outgrowth.

phorozoon (fōrōzō'ōn) *n.* [Gk. *pherein*, to bear; *zoon*, animal.] An asexual organism or larval stage preceding the sexual.

phosphagen,—creatine phosphate in vertebrate muscle, splitting into creatine and phosphoric acid during contraction, and reformed during recovery; arginine phosphate in muscle of certain invertebrates.

phosphene (fōs'fēn) *n.* [Gk. *phos*, light, *phainein*, to show.] A light impression on retina due to stimulus other than rays of light.

phosphoproteins (fōs'fop'rō'tēinz) *n. plu.* [Gk. *phosphoros*, bringing light; *proteion*, first.] Proteins linked with phosphoric acid, *e.g.* casein, vitellin.

phosphorescence (fōs'fōrēs'ēns) *n.* [Gk. *phosphoros*, bringing light.] The state of being luminous without sensible heat, common in marine protozoa, some copepods, and the majority of deep-sea animals; bioluminescence.

photic (fō'tik) *a.* [Gk. *phos*, light.] *Pert.* light; *appl.* zone, the surface waters penetrated by sunlight; *appl.* euphotic and dysphotoc zones, *opp.* aphotic.

photoceptor,—photoreceptor, *q.v.*

photochromatic (fō'tōkrōmāt'ik) *a.* [Gk. *phos*, light; *chroma*, colour.] *Appl.* interval between achromatic and chromatic thresholds.

photodinesis (fō'tōdinē'sis) *n.* [Gk. *phos*, light; *dine*, eddy.] Proto-plasmic streaming induced by light.

photodynamics (fō'tōdinām'iks) *n.* [Gk. *phos*, light; *dynamis*, strength.] The study of the effects of light-stimulation on plants.

photogen (fō'tōjēn) *n.* [Gk. *phos*, light; *-genes*, producing.] A light-producing organ, or substance.

photogenesis,—see biophotogenesis.

photogenic (fō'tōjēn'ik) *a.* [Gk. *phos*, light; *-genes*, producing.] Light-producing; luminescent.

photogenin,—luciferase, *q.v.*

photokinesis (fō'tōkīnē'sis) *n.* [Gk. *phos*, light; *kinesis*, movement.] Aggregation of organisms in response to stimulation by certain regions of the visual spectrum.

photonasty (fō'tōnās'ti) *n.* [Gk. *phos*, light; *nastos*, close pressed.] Response to diffuse light stimuli, or variations in illumination.

photopathy (fōtōp'āthi) *n.* [Gk. *phos*, light; *pathos*, feeling.] Aggregation without individual axial orientation in response to light stimulus; reaction to differential illumination of parts of an organism.

photoperiod (fō'tōpē'riōd) *n.* [Gk. *phos*, light; *periodos*, circuit.] Duration of daily exposure to light; length of day favouring optimum functioning of an organism.

photoperiodism (fō'tōpē'riōdizm) *n.* [Gk. *phos*, light; *periodos*, circuit.] Response of an organism to the relative duration of day and night.

photophase (fō'tōfāz) *n.* [Gk. *phos*, light; *phainein*, to appear.] Developmental stage during which the plant, after thermophase, shows definite requirements as to duration and intensity of light and temperature.

photophelein (fō'tōfē'lēin) *n.* [Gk. *phos*, light; *phelos*, deceiving.] A substance in plant and animal cells which may produce luciferin; or luciferin, *q.v.*

photophilous (fōtōf'ilūs) *a.* [Gk. *phos*, light; *philos*, loving.] Seeking, and thriving in, strong light.

photophobic (fō'tōfōb'ik) *a.* [Gk. *phos*, light; *phobos*, fear.] Not tolerating light; shunning light.

photophore (fō'tōfōr) *n.* [Gk. *phos*, light; *pherein*, to bear.] A luminous organ of certain crustaceans and fishes.

photophygous (fōtōf'igūs) *a.* [Gk. *phos*, light; *phyge*, flight.] Avoiding strong light.

photopia (fōtō'piā) *n.* [Gk. *phos*, light; *ops*, eye.] Adaptation of the eye to light, *opp.* scotopia.

photopic (fōtō'plk) *a.* [Gk. *phos*, light; *ops*, eye.] Having or *pert.* light-adapted eye. *opp.* scotopic.

photopsin (fōtōp'sin) *n.* [Gk. *phos*, light; *opsis*, sight.] The protein component of the violet retinal cone pigment iodopsin.

photoreceptor (fō'tōrēsēp'tōr) *n.* [Gk. *phos*, light; L. *receptus*, received.] Terminal organ receiving light stimuli; photoceptor.

photospheres (fō'tōsfēr) *n. plu.* [Gk. *phos*, light; *sphaira*, globe.] Luminous organs of Crustacea.

photosynthesis (fō'tōsint'hēsis) *n.* [Gk. *phos*, light; *synthesis*, putting together.] Carbon assimilation, requiring presence of chloroplasts and light, and consisting in synthesis of carbohydrates from carbon dioxide and water.

photosynthetic (fō'tōsint'hēt'ik) *a.* [Gk. *phos*, light; *synthesis*, putting together.] *Appl.* nutrition by carbon assimilation; feeding like a green plant.

photosynthetic quotient—the ratio between the volume of oxygen produced and the volume of carbon dioxide used. *Opp.* respiratory quotient.

photosynthetic zone,—of sea, between surface and compensation point, *q.v.*

phototaxis (fō'tōtāk'sis) *n.* [Gk. *phos*, light; *taxis*, arrangement.] Response to stimulus of light.

phototonus (fō'tōtō'nūs, fōtōt'ōnūs) *n.* [Gk. *phos*, light; *tonos*, tension.] Sensitiveness to light; condition of a plant or plant organ induced by light.

phototrophic (fō'tōtrōf'ik) *a.* [Gk. *phos*, light; *trophe*, nourishment.] Requiring light as a source of energy in nutrition; holophytic.

phototropism (fōtōt'rōpizm) *n.* [Gk. *phos*, light; *trope*, turn.] The tendency shown by most plants to turn their aerial growing parts towards the greater light.

phragma (frāg'mā) *n.* [Gk. *phragma*, fence.] A spurious dissepiment; a septum; an endotergite or dorsal apodeme of thorax and abdomen in Diplopoda and insects. *Plu.* phragmata.

phragmocone (frāg'mōkōn) *n.* [Gk. *phragmos*, fence; *konos*, cone.] In belemnites and other molluscs, a cone divided internally by a series of septa perforated by a siphuncle.

phragmocytarous (frāg'mōsit'ārūs) *a.* [Gk. *phragmos*, fence; *kyttaros*, honey-comb cell.] Building, or *pert.*, combs attached to supporting surface, as of certain wasps; *cf.* stelocytarous.

phragmoplast (frāg'mōplāst) *n.* [Gk. *phragmos*, fence; *plastos*, moulded.] Barrel-shaped stage of spindle in mitosis.

phragmosome (frāg'mōsōm) *n.* [Gk. *phragmos*, fence; *soma*, body.] A disc, derived from ectoplasm, in equatorial plane of cell and in which the cell plate is formed.

phragmospore (frāg'mōspōr) *n.* [Gk. *phragmos*, fence; *sporos*, seed.] A septate spore.

phratry (frā'tri) *n.* [Gk. *phratre*, a subdivision of a tribe.] A sub-tribe or clan.

phreatophyte (frēāt'ōfīt) *n.* [Gk. *phreatia*, tank.] Plant with very long roots reaching water-table.

phrenic (frēn'ik) *a.* [Gk. *phren*, diaphragm, mind.] *Pert.* or in region of diaphragm; *appl.* artery, ganglion, nerve, plexus, vein. *Pert.* mind.

phrenicocolic (frēn'ikōkōl'ik) *a.* [Gk. *phren*, diaphragm; *kolon*, lower part of intestine.] *Appl.* a ligament or a fold of peritoneum from left colic flexure to diaphragm.

phrenicocostal (frĕn'ikōkōs'tāl) *a.* [Gk. *phren*, diaphragm; *L. costa*, rib.] *Appl.* a narrow slit or sinus between costal and diaphragmatic pleurae.

phrenicolienal (frĕn'ikōliē'nāl) *a.* [Gk. *phren*, diaphragm; *L. lien*, spleen.] *Appl.* ligament forming part of peritoneum reflected over spleen and extending to diaphragm; lienorenal.

phrenicopericardiac (frĕn'ikōpēr'ī-kār'diāk) *a.* [Gk. *phren*, diaphragm; *peri*, around; *kardia*, heart.] *Appl.* a ligament extending from diaphragm to pericardium.

pthisaner (thī-'ānēr) *n.* [Gk. *phthisis*, wasting; *aner*, male.] Pupal male ant parasitised by an Oresema larva.

pthisergate (thī-'ērgāt) *n.* [Gk. *phthisis*, wasting; *ergates*, worker.] Pupal worker ant parasitised by an Oresema larva; infra-ergatoid.

pthisogyne (thī-'ōj'inē) *n.* [Gk. *phthisis*, wasting; *gyne*, female.] Pupal female ant parasitised by an Oresema larva.

phyad (fī'ād) *n.* [Gk. *phya*, nature.] An inherited form, *opp.* oecad.

phycobilins (fī'kōbī'linz) *n. plu.* [Gk. *phykos*, seaweed; *L. bilis*, bile.] Chromoproteins of seaweeds, as phycocyanin and phycoerythrin.

phycochrome (fī'kōkrōm) *n.* [Gk. *phykos*, seaweed; *chroma*, colour.] A pigment of blue-green algae.

phycochrysin (fī'kōkris'in) *n.* [Gk. *phykos*, seaweed; *chrysos*, gold.] An accessory pigment of orange-yellow algae.

phycocyanin (fī'kōsī'ānīn) *n.* [Gk. *phykos*, seaweed; *kyanos*, dark blue.] A pigment of blue-green algae.

phycoerythrin (fī'kōērīth'rīn) *n.* [Gk. *phykos*, seaweed; *erythros*, red.] The colouring matter of red algae.

phycology (fīkōl'ōjī) *n.* [Gk. *phykos*, seaweed; *logos*, discourse.] That part of botany dealing with algae.

phycophaein (fī'kōfē'in) *n.* [Gk.

phykos, seaweed; *phaios*, dusky.]

The pigment of brown algae.

phycoxanthin (fī'kōzān'thīn) *n.* [Gk. *phykos*, seaweed; *xanthos*, yellow.] Buff colouring matter of diatoms and brown algae.

phyla (fī'lā) *n. plu.* [Gk. *phylon*, tribe.] *Plu.* of phylum, *q.v.*

phylacobiosis (fil'ākōbiō'sis) *n.* [Gk. *phylax*, guard; *biosis*, manner of living.] Mutual or unilateral protective behaviour, as of certain ants.

phylactocarp (filāk'tōkârp) *n.* [Gk. *phylaktikos*, guarding; *karpōs*, fruit.] A modification of hydrocladium in Hydromedusae, for protection of gonophore.

phylembryo (fil'ēmbriō) *n.* [Gk. *phylon*, race; *embryon*, embryo.] Stage in development of Brachiopoda, at completion of protegulum.

phylephebic (fī'lēfē'bīk) *a.* [Gk. *phylon*, race; *ephebeia*, manhood.] *Appl.* adult stage in race history.

phyletic (filēt'ik) *a.* [Gk. *phylon*, race.] *Pert.* a phylum or race.

phyllade (filād') *n.* [Gk. *phyllas*, foliage.] A reduced scale-like leaf.

phyllary (fil'ārī) *n.* [Gk. *phyllon*, leaf.] A bract of the involucre of Compositae.

phyllidium (filīd'iūm) *n.* [Gk. *phyllidion*, little leaf.] An outgrowth from side of scolex of Cestoidea; bothridium.

phyllobranchia (fil'ōbrāng'kiā) *n.* [Gk. *phyllon*, leaf; *branchia*, gills.] A gill consisting of numbers of lamellae or thin plates.

phyllocaline (fil'ōkālēn) *n.* [Gk. *phyllon*, leaf; *kalein*, to summon.] A complex of substances, or hormone, which stimulates growth of mesophyll.

phylloclade (fil'ōklād') *n.* [Gk. *phyllon*, leaf; *klados*, sprout.] An assimilative branch of a fruticose thallus in lichens; a green flattened or rounded stem functioning as a leaf, as in Cactus; flattened axillary bud as in Ruscus; phyllocladium, cladode, cladophyll.

phyllocyst (fil'ösist) *n.* [Gk. *phyllon*, leaf; *kystis*, bladder.] The rudimentary cavity of a hydrophyllium or protective medusoid.

phyllode (fil'öd) *n.* [Gk. *phyllon*, leaf; *eidōs*, form.] Winged petiole with flattened surfaces placed laterally to stem, functioning as leaf.

phyllody (fil'ödi) *n.* [Gk. *phyllon*, leaf; *eidōs*, form.] Metamorphosis of an organ into a foliage leaf.

phylloerythrin (fil'öerith'rín) *n.* [Gk. *phyllon*, leaf; *erythros*, red.] A red pigment derived from chlorophyll and occurring in bile of herbivorous mammals; bilipurpurin, cholohaematin.

phylogenetic (fil'öjēnēt'ík) *a.* [Gk. *phyllon*, leaf; *genesis*, descent.] Producing or developing leaves.

phylloid (fil'oid) *a.* [Gk. *phyllon*, leaf; *eidōs*, form.] Leaf-like. *n.* The leaf regarded as a flattened branch, or as a telome.

phyllomania (fil'ömā'niā) *n.* [Gk. *phyllon*, leaf; *mania*, madness.] Abnormal leaf-production.

phyllome (fil'öm) *n.* [Gk. *phyllon*, leaf.] The leaf structures of a plant as a whole.

phyllomorphosis (fil'ömör'fōsis) *n.* [Gk. *phyllon*, leaf; *morphosis*, form.] Phyllody; variation of leaves at different seasons.

phyllophagous (filöf'ägūs) *a.* [Gk. *phyllon*, leaf; *phagein*, to eat.] Feeding on leaves.

phyllophore (fil'öför) *n.* [Gk. *phyllophoros*, leaf-bearing.] Terminal bud or growing point of palms.

phyllophorous (filöf'örūs) *a.* [Gk. *phyllophoros*, leaf-bearing.] Bearing or producing leaves.

phyllopode (fil'öpöd) *n.* [Gk. *phyllon*, leaf; *pous*, foot.] A sheathing leaf-base of Isoetes.

phyllopodium (fil'öpö'diüm) *n.* [Gk. *phyllon*, leaf; *pous*, foot.] The axis of a leaf; the stem regarded as pseudo-axis formed of fused leaf-bases.

phyllopodous (filöp'ödüs) *a.* [Gk. *phyllon*, leaf; *pous*, foot.] Having

leaf-like swimming-feet, as in Branchiopoda.

phylloptosis (filötö'sis, -ptō-) *n.* [Gk. *phyllon*, leaf; *ptōsis*, falling.] The fall of the leaf.

phyllorhiza (fil'örir'zā) *n.* [Gk. *phyllon*, leaf; *rhiza*, root.] A young leaf with a root.

phyllosphonic (fil'ösifōn'ík) *a.* [Gk. *phyllon*, leaf; *siphon*, tube.] With insertion of leaf-trace disturbing axial stele tissue. *Opp.* cladosiphonic.

phyllosperm (fil'öspērm) *n.* [Gk. *phyllon*, leaf; *sperma*, seed.] Seed borne on leaves, as in pteridophytes and cycads.

phyllosphondylous (fil'öspōn'dilūs) *a.* [Gk. *phyllon*, leaf; *sphondylos*, vertebra.] *Appl.* vertebrae consisting of hypocentrum and neural arch, both contributing to hollow transverse process, as in Stegocephali.

phyllisporous (filös'pōrūs) *a.* [Gk. *phyllon*, leaf; *sporos*, seed.] With sporophylls like foliage-leaves, as Lycopodium; *cf.* stachyosporous.

phyllotactic (fil'ötāk'tik) *a.* [Gk. *phyllon*, leaf; *taktikos*, fit for arrangement.] *Pert.* phyllotaxis; *appl.* fraction of circumference of stem between successive leaves, representing the angle of their divergence.

phyllotaxis (fil'ötāk'sis) *n.* [Gk. *phyllon*, leaf; *taxis*, arrangement.] The arrangement of leaves on an axis or stem.

phylloxanthin,—xanthophyll, *q.v.*

phyllozooid (fil'özō'oid) *n.* [Gk. *phyllon*, leaf; *zoon*, animal; *eidōs*, form.] A shield-shaped medusoid of protective function; a hydrophyllium of Hydromedusae.

phylobiology (fil'öbiöl'öji) *n.* [Gk. *phylon*, race; *bios*, life; *logos*, discourse.] The study of reactions or behaviour of organisms in relation to their racial history.

phyloephebic,—phylephebic, *q.v.*

phylogenesis (fil'öjēn'esis), **phylogeny** (filöj'ēni) *n.* [Gk. *phylon*, race; *genesis*, descent.] History of development of species or race; *cf.* ontogeny.

phylogenetic (fī'lōjēnēt'ik) *a.* [Gk. *phylon*, race; *genesis*, descent.] *Pert.* race-history; *appl.* reproductive cells, *opp.* autogenetic or body cells.

phylogerontic (fī'lōjērōn'tik) *a.* [Gk. *phylon*, race; *geron*, old man.] *Appl.* decadent stage in race-history.

phylon.—phylum, *q.v.*

phyloneanic (fī'lōnēā'nik) *a.* [Gk. *phylon*, race; *neanikos*, youthful.] *Appl.* youthful stage in race-history.

phylonepionic (fī'lōnēpiōn'ik) *a.* [Gk. *phylon*, race; *nepios*, infant.] *Appl.* post-embryonic stage in race-history.

phylum (fī'lūm) *n.* [Gk. *phylon*, race or tribe.] A group of animals or plants constructed on a similar general plan, a primary division in classification.

phyma (fī'mā) *n.* [Gk. *phyma*, tumour.] An excrescence not containing gonidia, on podetium of lichens.

phyone (fī'ōn) *n.* [Gk. *phyein*, to make to grow.] A preputituary principle controlling growth; growth hormone; phyon, tethelin.

physa (fī'sā) *n.* [Gk. *physa*, bellows.] The modified rounded base of burrowing sea-anemones.

physicist (fiz'isist) *n.* [Gk. *physikos*, physical.] From biological standpoint, an upholder of theory that vital phenomena are explicable on a physico-chemical basis.

physiogenesis (fiz'iojēn'ēsīs) *n.* [Gk. *physis*, nature; *genesis*, descent.] The development of vital activities; ontogenesis in its physiological aspect; physiogeny.

physiogenic (fiz'iojēn'ik) *a.* [Gk. *physis*, nature; *-genes*, producing.] Caused by functioning of an organ or part; *pert.* physiogenesis.

physiogeny.—physiogenesis, *q.v.*

physiology (fiziōl'ōji) *n.* [Gk. *physis*, nature; *logos*, discourse.] That part of biology dealing with functions and activities of organisms.

physoclistous (fī'sōklis'tūs) *a.* [Gk.

physa, bladder; *kleiein*, to close.] Having no channel connecting swim-bladder and digestive tract, as in most teleosts.

physodes (fī'sōdz) *n. plu.* [Gk. *physa*, bubble.] Spindles of phloroglucin contained in plasmodium of certain Sarcodina.

physogastry (fisōgās'trī) *n.* [Gk. *physan*, to blow up; *gaster*, belly.] Excessive fat-body and enlargement of abdomen in insects.

physostomous (fisōs'tōmūs) *a.* [Gk. *physa*, bladder; *stoma*, mouth.] Having swim-bladder and digestive tract connected throughout life by pneumatic duct, as in ganoids.

phytobiology (fī'tōbiōl'ōji) *n.* [Gk. *phyton*, plant; *bios*, life; *logos*, discourse.] Plant biology; the life-history of plants.

phytobiotic (fī'tōbiōt'ik) *a.* [Gk. *phyton*, plant; *bios*, life.] Living within plants; *appl.* some protozoa.

phytochemistry (fī'tōkēm'istrī) *n.* [Gk. *phyton*, plant; *chemeia*, transmutation.] The chemistry of plants.

phytochromes (fī'tōkrōmz) *n. plu.* [Gk. *phyton*, plant; *chroma*, colour.] Chromoproteins of plants, as certain seaweed pigments.

phytocoenosis (fī'tōsēnō'sīs) *n.* [Gk. *phyton*, plant; *koinos*, common.] The assemblage of plants living in a particular locality.

phytogenesis (fī'tōjēn'ēsīs) *n.* [Gk. *phylon*, plant; *genesis*, descent.] Evolution. or development, of plants.

phytogenetics (fī'tōjēnēt'iks) *n.* [Gk. *phyton*, plant; *genesis*, descent.] Plant genetics.

phytogenous (fitōj'ēnūs) *a.* [Gk. *phylon*, plant; *genos*, generation.] Of vegetable origin; produced by plants.

phytogeny.—phytogenesis.

phytogeography (fī'tōjēōg'rāfi) *n.* [Gk. *phyton*, plant; *ge*, earth; *graphein*, to write.] Study of the geographical distribution of plants; geobotany.

phytography (fitög'räfī) *n.* [Gk. *phyton*, plant; *graphein*, to write.] Descriptive botany.

phytohormones (fi'tôhôr'mônz) *n. plu.* [Gk. *phyton*, plant; *hormaein*, to excite.] Internal secretions of plants, as auxins and traumatin; plant hormones.

phytoid (fi'toid) *a.* [Gk. *phyton*, plant; *eidōs*, form.] Plant-like. *n.* An individual in a plant colony; *cf.* zooid.

phytolith (fi'tôlith) *n.* [Gk. *phyton*, plant; *lithos*, stone.] Mineral particle, as hydrate of silica, in plant tissue, particularly of herbage.

phytology (fitôl'ôji) *n.* [Gk. *phyton*, plant; *logos*, discourse.] Botany.

phytoma (fitô'mā) *n.* [Gk. *phyton*, plant.] Vegetative plant-substance.

phytome (fi'tôm) *n.* [Gk. *phyton*, plant.] Plants considered as an ecological unit; vegetation.

phytomer (fi'tômēr) *n.* [Gk. *phyton*, plant; *meros*, part.] A structural unit of a plant; a bud-bearing node.

phytomorphic (fi'tômôr'fik) *a.* [Gk. *phyton*, plant; *morphe*, form.] With plant-like structure.

phyton (fi'tôn) *n.* [Gk. *phyton*, plant.] A rudimentary plant; propagation unit, smallest detached part which can form another plant; a phytomer, *q.v.*

phytonomy (fitôn'ômi) *n.* [Gk. *phyton*, plant; *nomos*, law.] The laws of origin and development of plants.

phytoparasite (fi'tôpār'āsīt) *n.* [Gk. *phyton*, plant; *parasitos*, parasite.] Any parasitic plant organism.

phytopathology (fi'tôpāthôl'ôji) *n.* [Gk. *phyton*, plant; *pathos*, suffering; *logos*, discourse.] The study of abnormalities of formation and function in plants; study of plant diseases.

phytophagous (fitôf'ägūs), *a.* [Gk. *phyton*, plant; *phagein*, to eat.] Feeding on plants; *cf.* herbivorous.

phytophilous,—phytophagous.

phytophysiology (fi'tôfiziol'ôji) *n.* [Gk. *phyton*, plant; *physis*, nature; *logos*, discourse.] Plant physiology.

phytoplankton (fi'tôplāngk'tôn) *n.* [Gk. *phyton*, plant; *plankton*, wandering.] Plant plankton.

phytoplasm (fi'tôplāzm) *n.* [Gk. *phyton*, plant; *plasma*, mould.] Plant protoplasm.

phytosis (fitô'sis) *n.* [Gk. *phyton*, plant.] Production of disease by vegetable parasites, as by fungi; any disease so caused.

phytosociology (fi'tôsôsïol'ôji) *n.* [Gk. *phyton*, plant; *L. socius*, companion; *Gk. logos*, discourse.] The branch of botany comprising ecology, chorology, and genetics of plant associations.

phytosterols (fitôstēr'ôlz) *n. plu.* [Gk. *phyton*, plant; *stereos*, solid; *L. oleum*, oil.] Plant sterols; sterols from phanerogams, as sitosterol, stigmasterol, etc.; *cf.* mycosterols.

phytotomy (fitôt'ômi) *n.* [Gk. *phyton*, plant; *tome*, cutting.] The dissection of plants; plant anatomy.

phytotoxin (fi'tôtôk'sin) *n.* [Gk. *phyton*, plant; *toxikon*, poison.] Any toxin originating in plants.

phytotrophic (fi'tôtôrôf'ik) *a.* [Gk. *phyton*, plant; *trephein*, to nourish.] Autotrophic; holophytic, *q.v.*

phytotype (fi'tôtîp) *n.* [Gk. *phyton*, plant; *typos*, pattern.] Representative type of plant.

pia mater (pi'ā mā'tēr) *n.* [*L. pia mater*, tender mother.] A delicate vascular membrane investing brain and spinal cord.

pigment (pig'mënt) *n.* [*L. pingere*, to paint.] Colouring matter in plants and animals.

pigment cell,—a chromatophore or chromocyte.

pigmentation (pig'mëntā'shūn) *n.* [*L. pingere*, to paint.] Disposition of colouring matter in an organ or organism.

pilea,—*plu.* of pileum.

pileate (pil'ēāt) *a.* [*L. pileatus*, wearing a cap.] Having a pileus.

pileated,—crested; *appl.* birds.

pileocystidium (pīl'ēsīstīd'īūm) *n.* [L. *pileus*, cap; Gk. *kystis*, bag; *idion*, *dim.*] One of the cystidium-like structures on pileus of certain Basidiomycetes.

pileolated (pīl'ēōlātēd) *a.* [L. *pileolus*, small cap.] Furnished with a small cap or caps.

pileolus (pīl'ēōlūs) *n.* [L. *pileolus*, small cap.] A small pileus.

pileorhiza (pīl'ēōrī'zā) *n.* [L. *pileus*, cap; Gk. *rhiza*, root.] A root-covering; a root-cap.

pileum (pīl'ēūm) *n.* [L. *pileum*, cap.] Top of head region of bird.

pileus (pīl'ēūs) *n.* [L. *pileus*, cap.] Umbrella-shaped structure of mushroom, or of jelly-fish.

pilidium (pīlīd'īūm) *n.* [Gk. *pilidion*, small cap.] The characteristic helmet-shaped larva of Nemertea; a hemispherical apothecium of certain lichens.

pilifer (pīl'īfēr) *n.* [L. *pilus*, hair; *ferre*, to carry.] Part of labrum of Lepidoptera.

piliferous (pīlīf'ērūs) *a.* [L. *pilus*, hair; *ferre*, to carry.] Bearing or producing hair; *appl.* outermost layer of root or epiblemma which gives rise to root-hairs; piligerous.

pilocystidium,—pileocystidium.

pilomotor (pīl'ōmō'tōr) *a.* [L. *pilus*, hair; *movere*, to move.] *Appl.* non-myelinated fibres innervating muscles of hair follicles.

pilose (pīl'ōs) *a.* [L. *pilosus*, hairy.] Hairy, downy.

pilotrichome,—pileocystidium.

pilus (pīl'ūs) *n.* [L. *pilus*, hair.] One of slender hair-like structures covering some plants.

pinacocytes (pīn'ākōsīts) *n. plu.* [Gk. *pinax*, tablet; *kytos*, hollow.] The flattened plate-like cells of dermal epithelium of sponges.

pincers,—prehensile claws, as of lobster; chelae of insects; chelicerae of arachnids.

pineal gland or body,—the epiphysis cerebri, a median outgrowth from first cerebral vesicle, first tubular then branched, believed to have

endocrine functions, and distally connected with the parietal organ, homologous with a median eye.

pineal region,—portion of brain giving rise to pineal and parapineal organs.

pineal sac,—end vesicle of epiphysis, as in Sphenodon.

pineal system,—the parietal organ and associated structures, as pineal sac, stalk, and nerves, parapineal organ, epiphysis.

pin-eyed,—having stigma at mouth of tubular corolla, with shorter stamens. *Opp.* thrum-eyed.

pinna (pīn'ā) *n.* [L. *pinna*, feather.] A leaflet of a pinnate leaf; auricula or outer ear; a bird's feather or wing; a fish-fin.

pinnaglobulin,—a brown respiratory pigment containing manganese, in certain bivalves.

pinnate (pīn'āt) *a.* [L. *pinnatus*, feathered.] Divided in a feathery manner; with lateral processes; of a compound leaf, having leaflets on each side of an axis or midrib.

pinnatifid (pīnāt'īfīd) *a.* [L. *pinna*, feather; *findere*, to cleave.] *Appl.* leaves lobed half-way to midrib.

pinnatilobate (pīnāt'īlō'bāt) *a.* [L. *pinna*, feather; *lobus*, lobe.] With leaves pinnately lobed.

pinnation (pīnā'shūn) *n.* [L. *pinna*, feather.] Pinnate condition.

pinnatipartite (pīnāt'īpār'tīt) *a.* [L. *pinna*, feather; *partitus*, divided.] With leaves lobed three-quarters of way to midrib.

pinnatiped (pīnāt'īpēd) *a.* [L. *pinna*, feather; *pes*, foot.] Having lobed toes, as certain birds.

pinnatisect (pīnāt'īsēkt) *a.* [L. *pinna*, feather; *sectus*, cut.] With leaves lobed almost to base or midrib.

pinnatodentate (pīnāt'ōdēn'tāt) *a.* [L. *pinna*, feather; *dens*, tooth.] Pinnate, with toothed lobes.

pinnatopectinate (pīnāt'ōpēk'tīnāt) *a.* [L. *pinna*, feather; *pecten*, comb.] Pinnate, with pectinate lobes.

pinniform (pīn'īfōrm) *a.* [L. *pinna*, feather; *forma*, shape.] Feather-shaped, or fin-shaped.

pinninervate (pín'ínér'vât) *a.* [L. *pinna*, feather; *nervus*, sinew.] With veins disposed like parts of feather.

pinnulary (pín'üläri) *n.* [L. *pinnula*, *dim.* of *pinna*, feather.] Any of the ossicles of a pinnule of Crinoidea.

pinnule (pín'ül) *n.* [L. *pinnula*, *dim.* of *pinna*, feather.] A secondary leaflet of a bipinnate or of a pinnately compound leaf; in Crinoidea, one of side-branches, two rows of which fringe arms.

pinocytosis (pi'nösitó'sis) *n.* [Gk. *piein*, to drink; *kytos*, hollow.] The ingestion of droplets by cells.

pinulus (pín'ülüs) *n.* [L. *pinulus*, small fir.] A spicule resembling a fir-tree owing to development of small spines from one ray.

piriform (pír'íform) *a.* [L. *pirum*, pear; *forma*, shape.] Pear-shaped; *appl.* a muscle of gluteal region, musculus piriformis; pyriform, *q.v.*

piscicolous (pisik'ölüs) *a.* [L. *piscis*, fish; *colere*, to inhabit.] Living within fishes, as certain parasites.

pisciform (pis'íform) *a.* [L. *piscis*, fish; *forma*, shape.] Shaped like a fish.

piscivorous (pisiv'örüs) *a.* [L. *piscis*, fish; *vorare*, to devour.] Fish-eating.

pisiform (pi'síform) *a.* [L. *pisum*, pea; *forma*, shape.] Pea-shaped; *appl.* a carpal bone, os pisiforme.

pisohamate (pi'söhäm'ât) *a.* [L. *pisum*, pea; *hamus*, hook.] *Appl.* a ligament connecting pisiform and hamate bones.

pisometacarpal (pi'sömëtäkâr'päl) *a.* [L. *pisum*, pea; Gk. *meta*, beyond; L. *carpus*, wrist.] *Appl.* a ligament connecting pisiform bone with fifth metacarpal.

pistil (pís'til) *n.* [L. *pistillum*, pestle.] Seed-bearing organ of flower, consisting of ovary, style, and stigma; gynoecium.

pistillate (pís'tilât) *a.* [L. *pistillum*, pestle.] Bearing pistils or female reproductive organs.

pistillidium (pístil'id'ium) *n.* [L. *pistillum*, pestle; Gk. *idion*, *dim.*] The female sexual organ of gymnosperms, pteridophytes and gymnosperms.

pistillody (pístil'ödi) *n.* [L. *pistillum*, pestle; Gk. *eidos*, form.] The conversion of any organ of a flower into carpels.

pistillum (pístil'üm) *n.* [L. *pistillum*, pestle.] A mass of muscle in a chitinous tube in aurophore of a medusoid colony.

pit (pit) *n.* [A.S. *pyt*, pit.] A depression formed in course of cell-wall thickening in plant tissue; embryonic olfactory depression.

pit-chamber,—the cavity of a bordered pit below the overarching border.

pitcher (pít'shēr) *n.* [L.L. *picarium*, beaker.] A modification of a leaf for insect-catching purposes, as pitcher-shaped leaf of *Nepenthes*.

pit-fields,—areas of depressions in primary cell-walls.

pith (pith) *n.* [A.S. *piþa*, pith.] The medulla or central region of a dicotyledonous stem; stelar parenchyma.

pit-lines,—superficial grooves on dermal bones of primitive fishes, formed by latero-sensory system.

pit-membrane,—middle lamella of plant cell-wall forming floor of pits of adjacent cells.

pitocin,—a hormone of the posterior lobe of the pituitary gland, causing contraction of uterine muscle; a hypophamine; oxytocin.

pitressin,—a hormone of the posterior lobe of the pituitary gland, inducing increase in blood pressure; β hypophamine; vasopressin.

pituicyte (pitü'isit) *n.* [L. *pituia*, phlegm; Gk. *kytos*, hollow.] A glial cell in pars nervosa of pituitary gland.

pituitary (pitü'itári) *a.* [L. *pituia*, phlegm.] *Appl.* a body or hypophysis of hypothalamus of brain. *n.* Hypophysis, an endocrine gland, including anterior and posterior lobes and neural stalk or infundibulum.

pituitrin (pítū'itrín) *n.* [L. *pituita*, phlegm.] An extract from posterior pituitary lobe; infundin, infundibulin, hypophysin.

pivot-joint,—a trochoid joint, or one in which movement is limited to rotation.

placenta (pläsén'tā) *n.* [L. *placenta*, flat cake.] Ovule-bearing part of carpel; a sporangium-bearing area; in eutherian mammals, a double vascular spongy structure formed by interlocking of foetal and maternal tissue in uterus, and in which maternal and foetal blood vessels are in close proximity, allowing nutritive and respiratory exchange by osmosis.

placental (pläsén'tāl) *a.* [L. *placenta*, flat cake.] *Pert.* a placenta or similar structure; *appl.* mammals which develop a placenta; secreted by placenta, *appl.* anterior-pituitary-like hormone.

placentate (pläsén'tāt) *a.* [L. *placenta*, flat cake.] Having a placenta developed; placentiferous, placentigerous.

placentation (pläs'éntā'shūn) *n.* [L. *placenta*, flat cake.] The manner in which seeds are attached to pericarp, or embryos to uterus; formation, or structural type, of placenta.

placochromatic (plāk'ōkrōmāt'ik) *a.* [Gk. *plax*, plate; *chroma*, colour.] With plate-arrangement of chromatophores.

placode (plāk'ōd) *n.* [Gk. *plax*, plate; *eidos*, form.] A localised thickening of ectoderm forming a neural primordium; a plate-like structure.

placoid (plāk'oid) *a.* [Gk. *plax*, plate; *eidos*, form.] Plate-like; *appl.* hard scales or dermal teeth on external surfaces of elasmobranchs; *appl.* a sensilla, possibly reacting to differences in air pressure, in insects.

placula (plāk'ulā) *n.* [Gk. *plax*, plate.] A flattened blastula with small segmentation cavity, an embryonic stage of Urochorda; a stage in Volvox.

plagioclimax (plā'jiōklī'māks) *n.* [Gk. *plagios*, athwart; *klimax*, ladder.] Climax of a plagiosere.

plagiosere (plā'jiōsēr) *n.* [Gk. *plagios*, athwart; L. *serere*, to put in a row.] Plant succession deviating from its course owing to external intervention, as by human activity; a deflected scre.

plagiotropic (plā'jiōtrōp'ik) *a.* [Gk. *plagios*, oblique; *trope*, turn.] Obliquely inclined; *appl.* roots and branches. *Opp.* orthotropic.

plagiotropism (plā'jiōtrōpizm) *n.* [Gk. *plagios*, oblique; *trope*, turn.] Tendency to incline from the vertical line to oblique or horizontal.

plagiotropous (plā'jiōtrōpūs) *a.* [Gk. *plagios*, oblique; *trope*, turn.] Obliquely inclined; *appl.* the asymmetrical polar cap of Rhombozoa.

plagula (pläg'ulā) *n.* [L. *plagula*, curtain.] Ventral plate protecting the pedicel in spiders.

plain muscle,—unstriped or involuntary muscle.

plakea (plākē'ā) *n.* [Gk. *plakoeis*, flat cake.] Plate-like early stage in formation of a coenobium.

planea,—blastaea, *q.v.*

planetism (plän'etizm) *n.* [Gk. *planetes*, wanderer.] The character of having motile or swarm stages.

planidium (plänid'iūm) *n.* [Gk. *planos*, wandering; *idion*, *dim.*] Active migratory larva of certain insects.

planiform (plän'ifōrm) *a.* [L. *planus*, level; *forma*, shape.] With nearly flat surface; *appl.* certain articulation surfaces.

plankton (pläng'ktōn) *n.* [Gk. *plangktos*, wandering.] The marine or fresh-water plants and animals drifting with the surrounding water, including animals with weak locomotory power.

planoblast (plän'öbläst) *n.* [Gk. *planos*, wandering; *blasos*, bud.] A free-swimming hydroid individual.

planoconidium (plän'ōkōnid'iūm) *n.* [Gk. *planos*, wandering; *konis*, dust; *idion*, *dim.*] Zoospore of fungi.

- planocyte** (plăn'ösit) *n.* [Gk. *planos*, wandering; *kytos*, hollow.] A wandering cell; a planospore; swarm cell of certain fungi.
- planogamete** (plăn'ögämët') *n.* [Gk. *planos*, wandering; *gametes*, spouse.] A ciliated motile protoplast of some algae; motile gamete in certain fungi; microzoospore; zoogamete.
- planont** (plăn'önt) *n.* [Gk. *planos*, wandering; *on*, being.] Any motile spore, gamete, or zygote; the initial amoebula-stage of Neosporidia; a swarm-spore produced in thick-walled or resting sporangia of certain Phycomycetes.
- planosome** (plăn'ösöm) *n.* [Gk. *planos*, wandering; *soma*, body.] A supernumerary chromosome due to non-disjunction of mates in meiosis.
- planospore** (plăn'öspör) *n.* [Gk. *planos*, wandering; *sporos*, seed.] A motile spore; zoospore. *Opp.* aplanospore.
- planozygote** (plăn'özīgöt') *n.* [Gk. *planos*, wandering; *zygotos*, yoked.] A motile zygote.
- planta** (plăn'tä) *n.* [L. *planta*, sole of foot.] The sole of foot; first tarsal joint of insects; apex of proleg.
- plantar** (plăn'tär) *a.* [L. *planta*, sole of foot.] *Pert.* sole of foot; *appl.* arteries, ligaments, muscles, nerves, veins, etc.
- plantigrade** (plăn'tigräd) *a.* [L. *planta*, sole of foot; *gradus*, step.] Walking with whole sole of foot touching the ground.
- plantula** (plăn'tülä) *n.* [L. *plantula*, small sole.] A pulvillus-like adhesive pad on tarsal joints of some insects.
- planula** (plăn'ülä) *n.* [L. *planus*, flat.] The ovoid young free-swimming larva of coelenterates.
- planum** (plä'nüm) *n.* [L. *planus*, flat.] A plane or area; *appl.* certain cranial bone surfaces.
- plaque** (pläk) *n.* [F. *plaque*, plate.] Area cleared by a phage in a bacterial growth; tâche vierge.
- plasma** (pläz'mä) *n.* [Gk. *plasma*, form.] The 'liquid tissue' of body fluids; protoplasm generally.
- plasmagene** (pläz'mäjën) *n.* [Gk. *plasma*, form; *genos*, descent.] A heritable protein unit or molecule in cytoplasm, influencing or interacting with other plasmagene; cytoplasmic determiner; blastogene, cytogene.
- plasmalemma** (pläz'mälēm'ä) *n.* [Gk. *plasma*, form; *lemma*, skin.] The thin cytoplasmic membrane covering ectoplasm or adjoining cell-wall; vitelline membrane.
- plasmaspore** (pläz'mäspör) *n.* [Gk. *plasma*, form; *sporos*, seed.] An adhesive spore in a sporangium.
- plasmatic** (pläzmät'ik) *a.* [Gk. *plasma*, form.] *Pert.* plasma; protoplasmic.
- plasmatogamy**, —plasmogamy, *q.v.*
- plasmatoönkosis** (pläz'mätöäng'kō-sis) *n.* [Gk. *plasma*, form; *ongkos*, bulk.] A thickened storage organ or toruloid structure of zoosporangium, as in Peronosporales.
- plasmatoparous** (pläz'mätöp'ärüs) *a.* [Gk. *plasma*, form; L. *parere*, to beget.] Developing a mycelium directly upon germination instead of zoospores, as grape mildew and other Plasmopara.
- plasmocyte** (pläz'mösit) *n.* [Gk. *plasma*, form; *kytos*, hollow.] A leucocyte.
- plasmodesma** (pläz'mödēs'mä) *n.* [Gk. *plasma*, form; *desma*, bond.] Cytoplasmic threads penetrating cell wall and forming intercellular bridge; plasmodesm, plasmodesmid. *Plu.* plasmodesmata.
- plasmodial** (pläzmō'diäl) *a.* [Gk. *plasma*, form; *eidōs*, form.] *Pert.* a plasmodium.
- plasmodiocarp** (pläzmō'diökärp') *n.* [Gk. *plasma*, form; *eidōs*, form; *karpōs*, fruit.] A modification of a plasmodium in some slime moulds.
- plasmoditrophoblast**, —syntrophoblast, *q.v.*
- plasmodium** (pläzmō'diüm) *n.* [Gk. *plasma*, form; *eidōs*, form.] A

collection of amoeboid masses without nuclear fusion; a multinucleate mass of protoplasm without cell-wall, of Myxomycetes; syncytium.

plasmogamy (plāzmög'āmi) *n.* [Gk. *plasma*, form; *gamos*, marriage.] In Protozoa, fusion of several individuals into a multinucleate mass; fusion of cytoplasmic substance without nuclear fusion.

plasmolysis (plāzmöl'isis) *n.* [Gk. *plasma*, form; *lysis*, loosing.] The withdrawal of water from plant cell, causing contraction of cell-walls and of protoplasm.

plasmomites (plāz'mömits) *n. plu.* [Gk. *plasma*, form; *mitos*, thread.] Minute fibrillae forming with plasmosomes the intergranular substance of a cell.

plasmon (plāz'mōn) *n.* [Gk. *plasma*, form; *on*, being.] Hypothetical system of cytoplasmic hereditary units, *opp.* gene system in the chromosomes.

plasmonema (plāzmōnē'mā) *n.* [Gk. *plasma*, form; *nema*, thread.] Protoplasmic thread in connection with plastids. *Plu.* plasmonemata.

plasmophore (plāz'möfōr) *n.* [Gk. *plasma*, form; *phora*, carrying.] Telophragma; Z-disc, *q.v.*

plasmoptysis (plāzmöp'tisis) *n.* [Gk. *plasma*, form; *ptysis*, expectoration.] Emission of cytoplasm from tips of hyphae in host cells, in certain endotrophic mycorrhizae; *cf.* ptyosome.

plasmosome (plāz'mösōm) *n.* [Gk. *plasma*, form; *soma*, body.] The true nucleolus; *cf.* karyosome; a minute cytoplasmic granule.

plasmotomy (plāzmöt'ōmi) *n.* [Gk. *plasma*, form; *tome*, cutting.] Division of plasmodium by cleavage into multinucleate parts.

plasome (plās'ōm) *n.* [Gk. *plasma*, form; *soma*, body.] A hypothetical unit, *q.v.*

plasson (plās'ōn) *n.* [Gk. *plassein*, to form.] The formative substance which may give rise to cellular elements; undifferentiated protoplasm.

plastic (plās'tik) *a.* [Gk. *plastos*, formed.] Formative; *appl.* sub-

stances used in forming or building up tissues or organs; *appl.* force which gives matter definite form.

plastid (plās'tid) *n.* [Gk. *plastos*, formed; *idion*, *dim.*] A cell-body other than nucleus or centrosome.

plastidogen organ,—the axial organ of echinoderms.

plastidome (plās'tidōm) *n.* [Gk. *plastos*, formed; *idion*, *dim*; *domos*, chamber.] In a cell, the plastids as a whole; cytoplasmic inclusions which give rise to plastids.

plastidule (plās'tidūl) *n.* [Gk. *plastos*, formed; *idion*, *dim.*] A hypothetical unit, *q.v.*

plastin (plās'tin) *n.* [Gk. *plastos*, formed.] A substance found in reticulum of cells.

plastochondria,—mitochondria, *q.v.*

plastochrone (plās'tōkrōn) *n.* [Gk. *plastos*, formed; *chronos*, time.] Time interval between successive stages in development, as between appearance of successive primordia in spiral systems of phyllotaxis.

plastocont,—chondriocont, *q.v.*

plastodynamia (plās'tōdinām'ia) *n.* [Gk. *plastos*, formed; *dynamis*, power.] Plastic or formative force.

plastogamy (plāstōg'āmi) *n.* [Gk. *plastos*, formed; *gamos*, marriage.] Union of distinct unicellular individuals with fusion of cytoplasm but not of nuclei.

plastogenes (plās'tōjēnz) *n. plu.* [Gk. *plastos*, formed; *gennaein*, to produce.] Cytoplasmic factors, controlled by or interacting with nucleus, which determine differentiation of plastids.

plastokont,—chondriocont, *q.v.*

plastomere (plās'tōmēr) *n.* [Gk. *plastos*, formed; *meros*, part.] Chondriomere; the chondriosome content of a sperm; a cytomere.

plastosome,—chondriosome, *q.v.*

plastral (plās'trāl) *a.* [F. *plastron*, breast-plate.] *Pert.* a plastron.

plastron (plās'trōn) *n.* [F. *plastron*, breast-plate.] Ventral bony shield of tortoises and turtles; other corresponding structure; film of

gas, or layer of gas bubbles retained by hairs, covering epicuticle of aquatic insects.

plate (plāt) *n.* [F. *plat*, Gk. *platys*, flat.] A flat, broad, plate-like structure or surface; a lamina, scale, disc, etc.

platybasic (plāt'ibā'sik) *a.* [Gk. *platys*, flat; *basis*, base.] *Appl.* the primitive chondrocranium with wide hypophysial fenestra; *cf.* tropibasic.

platydactyl (plāt'idāk'til) *a.* [Gk. *platys*, flat; *daktylos*, finger.] With flattened-out fingers and toes, as certain tailless amphibians.

platyhieric (plāt'hi'ērīk) *a.* [Gk. *platys*, flat; *hieros*, sacred.] Having sacral index above 100; *cf.* dolichohieric.

platysma (plätiz'mä) *n.* [Gk. *platysma*, flat piece.] Broad sheet of muscle beneath superficial fascia of neck.

platyspermic (plät'ispēr'mik) *a.* [Gk. *platys*, flat; *sperma*, seed.] With seed bilaterally symmetrical.

plectenchyma (plëktëng'kimä) *n.* [Gk. *plektos*, twisted; *engchyma*, infusion.] A tissue of cell filaments or tubular cells in algae and fungi.

plectoderm (plëk'tödërm) *n.* [Gk. *plektos*, plaited; *derma*, skin.] Outer tissue of a fruit-body, when composed of densely interwoven branched hyphae.

plectonemic (plëk'tönëm'ik) *a.* [Gk. *plektos*, twisted; *nema*, thread.] Having orthospirals interlocked at each twist, as of sister chromatids; paranemic.

plectonephridia (plëk'tönëfrid'ia) *n. plu.* [Gk. *plektos*, twisted; *nephros*, kidney.] Nephridia of diffuse type formed of networks of fine excretory tubules lying on body-wall and septa of certain oligochaetes; plectonephria, nephridia.

plectron (plëk'trön) *n.* [Gk. *plektron*, instrument to strike with.] Hammer-like form of certain bacilli during sporulation.

plectrum (plëk'trüm) *n.* [L. *plectrum*, instrument to strike with.]

Styloid process of temporal bone; malleus; uvula.

plegetropism (plëjët'röpīzm) *n.* [Gk. *plege*, shock; *trope*, turn.] A movement of an organ, resulting from redistribution of particles in protoplasm, in response to change in velocity.

pleioblastic (pli'öbläs'tik) *a.* [Gk. *pleion*, more; *blastos*, bud.] Having several buds; germinating at several points, as spores of certain lichens; pleioblastous.

pleiochasium (pli'ökä'ziüm) *n.* [Gk. *pleion*, more; *chasis*, division.] Axis of a cymose inflorescence bearing more than two lateral branches.

pleiocotyl (pli'ököt'il) *n.* [Gk. *pleion*, more; *kotyle*, cup.] A plant having more than two cotyledons.

pleiocotyledony (pli'ökötīlē'dōnī) *n.* [Gk. *pleion*, more; *kotyledon*, cup-shaped hollow.] The condition of having more than two seed-leaves or cotyledons.

pleiocyclic (pli'ösik'lik) *a.* [Gk. *pleion*, more; *kyklos*, circle.] Living through more than one cycle of activity, as a perennial plant.

pleiomeros (pliöm'ërüs) *a.* [Gk. *pleion*, more; *meros*, part.] Having more than normal number of parts, as of petals or sepals.

pleiometry (pliöm'ërit) *n.* [Gk. *pleion*, more; *meros*, part.] Condition of having more than the normal number of parts, as in a whorl.

pleiomorphous,—pleomorphic.

pleiopetalous (pli'öpët'älüs) *a.* [Gk. *pleion*, more; *petalon*, leaf.] Having more than the normal number of petals; having double flowers.

pleiophyllous (pli'öfil'üs) *a.* [Gk. *pleion*, more; *phyllon*, leaf.] Having more than normal number of leaves or leaflets.

pleiosporous,—polysporous.

pleiotaxy (pli'ötäk'si) *n.* [Gk. *pleion*, more; *taxis*, arrangement.] A multiplication of whorls, as in double flowers; pleiotaxis.

pleiotropic (pliōtrōp'ik) *a.* [Gk. *pleion*, more; *trope*, turn.] Influencing more than one character; *appl.* effects of a gene; *pert.* pleiotropy.

pleiotropy (pli'ōt'rōpt) *n.* [Gk. *pleion*, more; *trope*, turn.] Multiple effects of a single genetic factor; pleiotropism.

pleioxenous (pliōks'ēnūs) *a.* [Gk. *pleion*, more; *xenos*, host.] Parasitic on or in several species of hosts; heteroxenous. *n.* Pleioxeny.

Pleistocene (plis'tōsēn) *a.* [Gk. *pleistos*, most; *kainos*, recent.] *Pert.* or *appl.* glacial and post-glacial epoch following the Tertiary period, and merging into the Psychozoic. *n.* The great Ice Age, with four glacial and three interglacial phases.

pleochroic (plē'ōkrō'ik) *a.* [Gk. *pleon*, more; *chros*, colour.] With various colours.

pleochromatic (plē'ōkrōmāt'ik) *a.* [Gk. *pleon*, more; *chroma*, colour.] Exhibiting different colours under different environmental or physiological conditions.

pleogamy (plēōg'āmī) *n.* [Gk. *pleon*, more; *gamos*, marriage.] Maturation, therefore pollination, at different times, as of flowers of one plant.

pleometrosis (plēōmē'trōsis) *n.* [Gk. *pleon*, more; *meter*, mother.] Colony foundation by more than one female, as in some social Hymenoptera. *Opp.* haplometrosis, monometrosis. *a.* pleometrotic.

pleomorphic (plē'ōmōr'fik) *a.* [Gk. *pleon*, more; *morphe*, form.] Having two or more distinct forms occurring in one life-cycle; having several shapes; polymorphous, pleomorphous, pleiomorphous.

pleon (plē'ōn) *n.* [Gk. *plein*, to swim.] The abdominal region of Crustacea.

pleophyletic (plē'ōfilēt'ik) *a.* [Gk. *pleon*, more; *phylon*, race.] Originating from several lines of descent; polyphyletic.

pleopod (plē'ōpōd) *n.* [Gk. *plein*, to swim; *pous*, foot.] An abdominal

appendage or swimming-leg of Crustacea.

plerergate (plēr'ērgāt) *n.* [Gk. *pleros*, full; *ergates*, worker.] A replete worker ant having gaster distended with food.

plerocercoid (plēr'ōsēr'koid) *n.* [Gk. *pleros*, full; *kerkos*, tail; *eidōs*, form.] The elongated worm-like larval form of certain cestodes in second intermediate host.

plerocestoid (plēr'ōsēs'toid) *n.* [Gk. *pleros*, full; *kestos*, girdle; *eidōs*, form.] A metacestode, or sexless encysted stage of a cestoid worm; also plerocercoid.

plerome (plēr'ōm) *n.* [Gk. *pleroma*, a filling.] The core or central part of an apical meristem.

plerotic (plērōt'ik) *a.* [Gk. *pleroun*, to fill.] Completely filling a space; *appl.* oospore filling oogonium. *Opp.* aplerotic.

plesioibiotic (plēs'ioībiōt'ik) *a.* [Gk. *plesios*, near; *biosis*, a living.] Living in close proximity; *appl.* colonies of ants of different species; or of building contiguous nests, *appl.* ants and termites.

plesiometacarpal (plēs'ioēmētākār-pāl) *a.* [Gk. *plesios*, near; *meta*, after; *karpōs*, wrist.] *Appl.* condition of retaining proximal elements of metacarpals, as in many Cervidae; *opp.* telemetacarpal.

plesiomorphous (plēs'ioēmōr'fūs) *a.* [Gk. *plesios*, near; *morphe*, form.] Having a similar form.

plesiotype (plēs'ioītīp) *n.* [Gk. *plesios*, near; *typos*, pattern.] A species related to a genotype found in a different region or geological formation; hypotype. *g.v.*

pleura (plōor'ā) *n.* [Gk. *pleura*, side.] A serous membrane lining thoracic cavity and investing lung; *plu.* of pleuron, *g.v.* *Plu.* pleurae.

pleural (plōor'āl) *a.* [Gk. *pleura*, side.] *Pert.* a pleura or pleuron, as pleural ganglia; *appl.* costal plates of chelonian carapace.

pleuralia (plōor'ālīā) *n. plu.* [Gk. *pleura*, side.] Defensive spicules scattered over general body surface.

pleuranthous (ploorän'thūs) *a.* [Gk. *pleura*, side; *anthos*, flower.] Having inflorescences on lateral axes, not on main axis.

pleurapophysis (ploor'äpöf'isis) *n.* [Gk. *pleura*, side; *apo*, from; *physis*, growth.] A lateral vertebral process or true rib.

pleurethmoid (ploorëth'moid) *n.* [Gk. *pleura*, side; *ethmos*, sieve; *eidōs*, form.] The compound ectethmoid and prefrontal of some fishes.

pleurite (ploor'it) *n.* [Gk. *pleura*, side.] A sclerite of the pleuron.

pleuroblastic (ploor'öbläs'tik) *a.* [Gk. *pleura*, side; *blastos*, bud.] Producing, having, or *pert.* lateral buds or outgrowths; *appl.* haustoria of Peronosporaceae.

pleurobranchiae (ploor'öbräng'kië) *n. plu.* [Gk. *pleura*, side; *branchia*, gills.] Pleurobranches, or gills springing from lateral walls of thorax of certain Arthropoda.

pleurocarpic (ploor'ökär'pik) *a.* [Gk. *pleura*, side; *karpōs*, fruit.] *Appl.* mosses with fructification on lateral branches, *opp.* acrocarpic; pleurocarpous.

pleuroccipital,—exoccipital, *q.v.*

pleurocentrum (ploor'ösën'trüm) *n.* [Gk. *pleura*, side; *L. centrum*, centre.] A lateral element of centrum of many fishes and fossil amphibians.

pleurocerebral (ploor'ösër'ëbräl) *a.* [Gk. *pleura*, side; *L. cerebrum*, brain.] *Pert.* pleural and cerebral ganglia, in molluscs.

pleurocystidium (ploor'ösi'stid'ium) *n.* [Gk. *pleura*, side; *kystis*, bag; *idion*, dim.] A cystidium in hymenium of surface of lamella; *cf.* cheilocystidium.

pleurodont (ploor'ödönt) *a.* [Gk. *pleura*, side; *odous*, tooth.] Having teeth fixed by sides to lateral surface of jaw ridge, as in some lizards.

pleuron (ploor'ön) *n.* [Gk. *pleuron*, side.] One of the external lateral pieces of body segments of arthropods; a lateral extension of crustacean shells. *Plu.* *pleura.*

pleuropedal (ploor'öpëd'äl) *a.* [Gk.

pleura, side; *L. pes*, foot.] *Pert.* pleural and pedal ganglia of molluscs.

pleuroperitoneum (ploor'öpër'-itönë'üm) *n.* [Gk. *pleura*, side; *periteinein*, to stretch round.] Pleura and peritoneum combined, body-lining membrane of animals without diaphragm.

pleuropodium (ploor'öpö'diüm) *n.* [Gk. *pleura*, side; *pous*, foot.] A lateral glandular process of abdomen of some insect embryos.

pleurosphenoid,—sphenolateral, *q.v.*
pleurospore (ploor'öspör) *n.* [Gk. *pleura*, side; *sporos*, seed.] Spore formed on sides of a basidium.

pleurosteon (ploorös'tëön) *n.* [Gk. *pleura*, side; *osteon*, bone.] Lateral process of sternum in young birds, afterwards costal process.

pleurosternal (ploor'östër'näl) *a.* [Gk. *pleuron*, side; *sternon*, chest.] Connecting or *pert.* pleuron and sternum; *appl.* thoracic muscles in insects.

pleurotribe (ploor'öttrib) *a.* [Gk. *pleura*, side; *tribein*, to rub.] *Appl.* flowers whose anthers and stigma are so placed as to rub sides of insects entering,—a device for securing cross-pollination.

pleurotrichome,—pleurocystidium.
pleurovisceral (ploor'övis'ëräl) *a.* [Gk. *pleura*, side; *L. viscera*, intestines.] *Pert.* pleural and visceral ganglia, of molluscs.

pleurum,—pleuron.

pleuston (ploos'tön) *n.* [Gk. *pleustikos*, ready for sailing.] Free-floating plants.

plexiform (plëk'siförm) *a.* [*L. plexus*, interwoven; *forma*, shape.] Entangled or complicated; like a network; *appl.* layers of retina; *appl.* peripheral layer of grey matter of cerebral cortex.

plexiform gland,—the axial organ of echinoderms.

plexus (plëk'süs) *n.* [*L. plexus*, interwoven.] A network of interlacing vessels, nerves, or fibres.

plexus myentericus,—Auerbach's plexus, *q.v.*

plica (plí'kā) *n.* [L. *plicare*, to fold.] A fold of skin, membrane, or lamella.

plicate (plí'kāt) *a.* [L. *plicare*, to fold.] Folded like a fan, as a leaf; folded or ridged.

pliciform (plís'ifōrm) *a.* [L. *plicare*, to fold; *forma*, shape.] Resembling a fold; disposed in folds.

Pliocene (plí'ōsēn) *n.* [Gk. *pleion*, more; *kainos*, recent.] The latest epoch of the Tertiary period.

plotophyte (plō'tōfit) *n.* [Gk. *plotos*, floating; *phyton*, plant.] A plant adapted for floating.

ploughshare bone,—pygostyle, *q.v.*; vomer, *q.v.*

pluma (ploom'ā) *n.* [L. *pluma*, feather.] A contour feather of birds.

plumate (ploom'āt) *a.* [L. *pluma*, feather.] Plume-like.

plume (ploom) *n.* [L. *pluma*, feather.] A feather, or feather-like structure.

plumicome (ploom'íkōm) *n.* [L. *pluma*, feather; *coma*, hair.] A spicule with plume-like tufts.

plumicorn (ploom'íkōrn) *n.* [L. *pluma*, feather; *cornu*, horn.] Horn-like tuft of feathers on bird's head.

plumigerous (ploomij'ērūs) *a.* [L. *pluma*, feather; *gerere*, to carry.] Feathered.

plumiped (ploom'ipēd) *n.* [L. *pluma*, feather; *pes*, foot.] A bird with feathered feet.

plumose (ploom'ōs) *a.* [L. *pluma*, feather.] Feathery; having feathers; feather-like; *appl.* a type arrangement of skeletal fibre in sponges; *appl.* feathers without hamuli on barbules, *opp.* pennaceous.

plumula (ploom'ulā) *n.* [L. *plumula*, small feather.] An adult down feather, succeeding preplumula; a plumule, *q.v.*

plumular (ploom'ulār) *a.* [L. *plumula*, small feather.] *Pert.* a plumule.

plumulute (ploom'ulāt) *a.* [L. *plumula*, small feather.] Downy; with a downy covering; plumulaceous.

plumule (ploom'ul) *n.* [L. *plumula*, small feather.] A primary bud

on epicotyl, which develops primary axis of a stem; androconia of numerous butterflies; a plumula, *q.v.*

pluriascal (plooriās'kāl) *a.* [L. *plus*, more; Gk. *askos*, bag.] *Pert.* or containing several asci.

pluriauxial (ploor'iax'siāl) *a.* [L. *plus*, more; *axis*, axle.] Having flowers developed on secondary shoots.

plurilocular (ploor'ilōk'ulār) *a.* [L. *plus*, more; *loculus*, little place.] Having two or more loculi; multi-locular, pluriloculate.

plurinuclear (ploor'inū'klēār) *a.* [L. *plus*, more; *nucleus*, kernel.] Having several nuclei.

pluripartite (ploor'ipār'tit) *a.* [L. *plus*, more; *partitus*, divided.] With many lobes or partitions.

pluripolar (ploor'ipō'lār) *a.* [L. *plus*, more; *polus*, axis-end.] Having several poles; *appl.* ganglion cells, etc.; multipolar.

pluriseptate (ploor'isēp'tāt) *a.* [L. *plus*, more; *septum*, partition.] With multiple septa.

pluriserial (ploor'isē'riāl) *a.* [L. *plus*, more; *series*, row.] Arranged in two or more rows.

plurivalent (plooriv'älēnt, ploor'ivā'lēnt) *a.* [L. *plus*, more; *valere*, to be worth.] *Appl.* a chromatin-rod with more than one chromosome.

plurivorous (plooriv'ōrūs) *a.* [L. *plus*, more; *vorare*, to devour.] Feeding on several substrates or hosts.

pluteal (ploot'ēāl) *a.* [L. *pluteus*, shed.] *Pert.* a pluteus.

pluteus (ploot'ēūs) *n.* [L. *pluteus*, shed.] The free-swimming larva of echinoids and ophiroids.

pneumathode (nū'māthōd, pn-) *n.* [Gk. *pneuma*, breath; *hodos*, way.] An aerial or respiratory root.

pneumatic (nūmāt'ik, pn-) *a.* [Gk. *pneuma*, air.] *Appl.* bones penetrated by canals connected with respiratory system, in birds; *appl.* duct between swim-bladder and alimentary tract, in physostomous fishes.

pneumaticity (nūmätis'itī, pn-) *n.* [Gk. *pneuma*, air.] State of having air cavities, as bones of flying birds.

pneumatized (nū'mätīzd, pn-) *a.* [Gk. *pneuma*, air.] Furnished with air cavities.

pneumatocyst (nū'mätösist, pn-) *n.* [Gk. *pneuma*, air; *kystis*, bladder.] The air-bladder or swim-bladder of fishes; air cavity used as float; air-bladder of bladder-wrack.

pneumatophore (nū'mätöföör, pn-) *n.* [Gk. *pneuma*, air; *pherein*, to bear.] The air-sac or float of siphonophores; an air-bladder of marsh- or shore-plants; aerating outgrowth in certain ferns; an aerating root.

pneumatopyle (nū'mätöpil, pn-) *n.* [Gk. *pneuma*, air; *pyle*, gate.] A pore of a pneumatophore, opening above to exterior in certain Siphonophora.

pneumatotaxis,—pneumotaxis.

pneumogastric (nū'mögäs'trik, pn-) *a.* [Gk. *pneuma*, air; *gaster*, stomach.] *Appl.* tenth cranial or vagus nerve, supplying pharynx, larynx, heart, lungs, and viscera.

pneumostome (nū'möstöm, pn-) *n.* [Gk. *pneuma*, breath; *stoma*, mouth.] The pulmonary aperture, through which air passes to and from respiratory mantle cavity in terrestrial gasteropods.

pneumotaxis (nū'mötäk'sis, pn-) *n.* [Gk. *pneuma*, air; *taxis*, arrangement.] Reaction to stimulation by carbon dioxide in solution.

poculiform (pö'külförm) *a.* [L. *poculum*, cup; *forma*, shape.] Cup-shaped; goblet-shaped.

pod (pöd) *n.* [M.E. *pod*, bag.] A superior, one-celled, one- or many-seeded fruit of two valves; legume; a husk.

podal (pö'däl) *a.* [Gk. *pous*, foot.] *Pert.* feet; *pedal*; *pert.* parapodia, *appl.* membrane.

podeon (pöd'öön) *n.* [Gk. *pous*, foot.] The podeon or slender middle part of abdomen of Hymenoptera, uniting propodeon and metapodeon.

podetiiform (pödē'tülförm) *a.* [Gk. *pous*, foot; L. *forma*, shape.] Resembling a podetium.

podetium (pödē'shiüm) *n.* [Gk. *pous*, foot.] A stalk-like elevation; outgrowth of thallus bearing apothecium in certain lichens.

podex (pö'déks) *n.* [L. *podex*, rump.] The region about the anus; pygidium, *q.v.*

podical (pöd'ikäl) *a.* [L. *podex*, rump.] In anal region; adanal; *appl.* a pair of small hard plates or paraprocts beside anus of arthropods.

podite (pöd'it) *n.* [Gk. *pous*, foot.] A crustacean walking leg.

podium (pö'diüm) *n.* [Gk. *pous*, foot.] A foot or footlike structure; a stem axis.

podobranchiae (pöd'öbräng'kiē) *n. plu.* [Gk. *pous*, foot; *branchia*, gills.] Podobranchs or foot-gills, springing from coxopodites of thoracic appendages of certain Arthropoda.

podocephalous (pöd'ökéf'älüs, -séf-) *a.* [Gk. *pous*, foot; *kephale*, head.] Having head of flowers on long stalk.

podoconus (pöd'ökö'nüs) *n.* [Gk. *pous*, foot; *konos*, cone.] A conical mass of endoplasm connecting the central capsule with the disc of Sarcodina.

podocyst (pöd'ösist) *n.* [Gk. *pous*, foot; *kystis*, bladder.] A pedal sinus or caudal vesicle in certain Gasteropoda.

podocyte (pöd'ösit) *n.* [Gk. *pous*, foot; *kytos*, hollow.] A flat blood-cell with a few pointed outgrowths, in insects.

pododerm (pöd'ödërm) *n.* [Gk. *pous*, foot; *derma*, skin.] Dermal layer of a hoof, within horny layer.

podogynium (pöd'öjin'iüm) *n.* [Gk. *pous*, foot; *gyne*, female.] A stalk supporting the gynoeceum; basigynium.

podomere (pöd'ömër) *n.* [Gk. *pous*, foot; *meros*, part.] A limb segment of arthropods.

podophthalmite (pöd'öfhäl'mīt) *n.* [Gk. *pous*, foot; *ophthalmos*, eye.] In crustaceans, eye-stalk segment farthest from head.

podosoma (pöd'ösömā) *n.* [Gk. *pous*, foot; *soma*, body.] The body region in Arachnoidea which bears the four pairs of walking legs.

podotheca (pöd'öthē'kā) *n.* [Gk. *pous*, foot; *theke*, box.] A foot covering, as of birds or reptiles; pupal leg sheath.

podzol (pödzöl) *n.* [Russ. *pod*, under; *zolit'*, to leach.] Grey forest soil; soil type of cold temperate regions, and formed on heath lands and under coniferous forest.

poecilo,—poikilo.

pogonion (pögō'niön) *n.* [Gk. *pogonion*, little beard.] Most prominent point of chin as represented on mandible.

poikilocyte (poik'ilösit) *n.* [Gk. *poikilos*, various; *kytos*, cell.] A distorted form of erythrocyte present in certain pathological conditions.

poikilogony (poik'ilög'öni) *n.* [Gk. *poikilos*, various; *gone*, generation.] Intraspecific variation in duration of embryological processes, due to environmental factors.

poikilothermal (poik'ilöthēr'mäl) *a.* [Gk. *poikilos*, various; *therme*, heat.] *Appl.* cold-blooded animals, or those whose temperature varies with that of surrounding medium; poikilothermous; *Opp.* homoiothermal.

point mutation,—a mutation proper, heritable change occurring at a single gene locus; genovariation, micromutation, transgenation.

pointer cell,—eurycyst, *q.v.*

poison canal,—duct between stylet and lancets of sting of Hymenoptera, conveying secretion of poison glands from poison sac outwards.

polar (pö'lär) *a.* [Gk. *polos*, pivot.] In region of end of an axis; at, or *pert.*, a pole.

polar body,—one of two cells divided off from ovum during maturation, before germ-nuclei fuse; polocyte.

polar capsules,—of spores contain-

ing coiled extrusible filaments, in Cnidosporidia.

polar cartilage,—posterior portion of trabecula, or independent cartilage in that region.

polar corpuscle,—centrosome.

polar globule,—polar body.

polar granule,—centromere, *q.v.*

polar nuclei,—nuclei at each end of angiosperm embryo, which later form secondary nucleus.

polar plates,—two narrow ciliated areas produced in transverse plane, part of equilibrium apparatus of certain Coelenterata.

polar rays,—astral rays, *opp.* spindle-fibres.

polar rings,—two ring-shaped cytoplasmic masses near ovum poles formed after union of germ-nuclei.

polarilocular (pölä'r'ilök'ülär) *n.* [L. *polaris*, polar; *loculus*, compartment.] *Appl.* a cask-shaped spore with two cells separated by a partition having a perforation, of certain lichens; polaribilocular.

polarity (pölä'r'iti) *n.* [Gk. *polos*, pivot.] The tendency of plants to develop from the poles, roots downwards, stems upwards; the tendency of an ovum to place itself with axis corresponding to that of mother.

pole-capsule,—a cell resembling a nematocyst in Cnidosporidia.

pole-cell,—teloblast of annelids and molluscs.

pole-plates,—end-plates or achromatic masses at spindle poles in protozoan mitosis.

Polian vesicles [*G. S. Poli*, Italian naturalist]. Interradial vesicles opening into ring-vessel of ambulacral system of most Asteroidea and Holothuroidea.

polioplasm (pöl'ipöplāzm) *n.* [Gk. *polios*, gray; *plasma*, form.] Spongioplasm; granular protoplasm.

pollakanthic (pöl'äkän'thik) *a.* [Gk. *pollakis*, many times; *anthos*, flower.] Having several flowering periods. *Opp.* hapaxanthic.

pollen (pŏl'ĕn) *n.* [L. *pollen*, fine flour.] The male fertilising element or haploid microspore of seed-plants.

pollen analysis,—qualitative and quantitative determination of the occurrence of pollen in deposits, as in peat; palynology, *q.v.*

pollen basket,—the pollen-transporting hairs at back of tibia of worker bees; corbicula.

pollen-chamber,—pit formed at apex of nucellus below micropyle.

pollen-flower,—a flower without nectar attracting pollen-feeding insects.

pollen profile,—the vertical distribution of pollen grains in a deposit.

pollen sac,—loculus of anther; microsporangium of seed-plants.

pollen spectrum,—the relative numerical distribution or percentage of pollen grains of different species in a sample of deposit.

pollen tube,—a tubular process developed from pollen grains after attachment to stigma, and growing towards ovule, represents male gametophyte.

pollex (pŏl'ĕks) *n.* [L. *pollex*, thumb.] The thumb, or innermost digit of the normal five in anterior limb.

pollinarium (pŏlinā'riŭm) *n.* [L. *pollen*, fine flour.] The pollinium with its caudicle and adhesive disc.

pollination (pŏl'inā'shŭn) *n.* [L. *pollen*, fine flour.] Fertilisation in flowers; transference of pollen from anther to stigma, or from stigma to ovule.

pollination - drop, — mucilaginous drop exuded from micropyle and which detains pollen grains, as in gymnosperms.

polliniferous (pŏl'inif'ĕrŭs) *a.* [L. *pollen*, fine flour; *ferre*, to carry.] Pollen-bearing; adapted for transferring pollen; polliniferous.

pollinium (pŏlin'iŭm) *n.* [L. *pollen*, fine flour.] An agglutinated pollen mass in orchids and other plants.

pollinodium (pŏl'inŏ'diŭm) *n.* [L. *pollen*, fine flour; Gk. *hodos*, way.] An antheridium of certain algae and fungi.

pollinoid (pŏl'inoid) *n.* [L. *pollen*, fine flour; Gk. *eidos*, form.] A male gamete, or spermium.

polocytes (pŏl'ŏsits) *n. plu.* [Gk. *polos*, axis; *kytos*, hollow.] Polar bodies, *q.v.*

polster (pŏl'stĕr) *n.* [Ger. *Polster*, pad.] A low compact perennial or cushion plant.

polyadelphous (pŏl'iādĕl'fŭs) *a.* [Gk. *polys*, many; *adelphos*, brother.] Having stamens united by filaments into more than two bundles.

polyandrous (pŏl'iān'drŭs) *a.* [Gk. *polys*, many; *aner*, male.] Having twenty or more stamens; mating with more than one male.

polyandry (pŏl'iān'drĭ) *n.* [Gk. *polys*, many; *aner*, male.] Condition of a female consorting with several males.

polyanisomere (pŏl'iān'isŏmĕr) *n.* [Gk. *polys*, many; *anisos*, unequal; *meros*, part.] A structural unit composed of polyisomeres and anisomeres, *q.v.*, as vertebral column.

polyarch (pŏl'iārĕ) *a.* [Gk. *polys*, many; *arche*, beginning.] Having many protoxylem bundles; *appl.* multipolar spindle in higher plants.

polyaxon (pŏl'iāk'sŏn) *n.* [Gk. *polys*, many; *axis*, axle.] Type of spicule laid down along numerous axes.

polyblast (pŏl'iblāst) *n.* [Gk. *polys*, many; *blastos*, bud.] A histiocyte; tissue macrophage.

polyblastic (pŏl'iblās'tik) *a.* [Gk. *polys*, many; *blastos*, bud.] Having spores divided by a number of septa; *appl.* lichens; polyblastous.

polycarp (pŏl'ikārp) *n.* [Gk. *polys*, many; *karpōs*, fruit.] A gonad of some ascidians, on inner surface of mantle.

polycarpellary (pŏl'ikār'pĕlārĭ) *a.* [Gk. *polys*, many; *karpōs*, fruit.] With compound gynoecium.

polycarpic (pŏl'ikār'pik), **polycarpous** (pŏl'ikār'pŭs) *a.* [Gk. *polys*, many; *karpōs*, fruit.] With numerous carpels; producing seed season after season, *appl.* perennials.

polycaryo,—polykaryo-.

polycentric (pōl'isēn'trik) *a.* [Gk. *polys*, many; *kentron*, centre.] With several growth centres; *opp.* monocentric; with several centromeres, *appl.* chromosome. *n.* A polycentric chromosome.

polycercous (pōl'isēr'kūs) *a.* [Gk. *polys*, many; *kerkos*, tail.] *Appl.* bladderworms developing several cysts, each with head.

polychasium (pōl'ikā'ziūm) *n.* [Gk. *polys*, many; *chasis*, division.] A cymose branch system when more than two branches arise about the same point.

polychromasy, -ie (pōl'ikrō'māsī) *n.* [Gk. *polys*, many; *chroma*, colour.] Multiple and differential tinting with one staining mixture.

polychromatic (pōl'ikrōmāt'ik) *a.* [Gk. *polys*, many; *chroma*, colour.] With several colours, as pigment areas; *appl.* two forms of erythrocytes with well-defined chromatin.

polychromatocyte (pōl'ikrō'mātōsīt) *n.* [Gk. *polys*, many; *chroma*, colour; *kytos*, hollow.] A blood cell developed from a normoblast and which becomes a normocyte or mature erythrocyte; polychromatophil erythrocyte or rubricyte.

polychromatophil (pōl'ikrō'mātōfil) *a.* [Gk. *polys*, many; *chroma*, colour; *philein*, to love.] Having a staining reaction characterised by varying colours; *appl.* erythroblasts with small haemoglobin content.

polycotyledon (pōl'ikōtīlē'dōn) *n.* [Gk. *polys*, many; *kotyledon*, hollow vessel.] A plant with more than two seed-leaves.

polycotyledonary (pōl'ikōtīlē'dōnārī) *a.* [Gk. *polys*, many; *kotyledon*, hollow vessel.] Having placenta in many divisions.

polycotyledonous (pōl'ikōtīlē'dōnūs) *a.* [Gk. *polys*, many; *kotyledon*, hollow vessel.] Having more than two cotyledons or seed lobes, as fir embryo.

polycotyledony (pōl'ikōtīlē'dōnī) *n.* [Gk. *polys*, many; *kotyledon*, hollow vessel.] A great increase in number of cotyledons.

polycrotism (pōlik'rōtizm) *n.* [Gk. *polys*, many; *krotos*, beating.] Condition of having several secondary elevations in pulse curve.

polycyclic (pōl'isik'lik) *a.* [Gk. *polys*, many; *kyklos*, circle.] Having many whorls or ring structures.

polycystid (pōl'isīs'tid) *a.* [Gk. *polys*, many; *kystis*, bladder.] Septate; partitioned off.

polydactyly (pōl'idāk'tilī) *n.* [Gk. *polys*, many; *daktylos*, finger.] Condition of having an excessive number of fingers or toes; polydactylism.

polydesmic (pōlidēs'mik, -dēz-) *a.* *Appl.* cyclomerial scales made up of monodesmic scales; *cf.* synpolydesmic, deuteropolydesmic.

polyembryony (pōl'iēm'brīōnī) *n.* [Gk. *polys*, many; *embryon*, foetus.] Formation of several embryos in one ovule; instance of a zygote giving rise to more than one embryo, *e.g.* identical twins, offspring of armadillos, certain insects, etc.

polyenergic (pōl'iēn'ērjīd) *a.* [Gk. *polys*, many; *energos*, active.] *Appl.* nuclei with more than one centriole.

polygamous (pōlig'āmūs) *a.* [Gk. *polys*, many; *gamos*, marriage.] Bearing male, female, and hermaphrodite flowers; consorting with more than one mate.

polygamy (pōlig'āmī) *n.* [Gk. *polys*, many; *gamos*, marriage.] Condition of having staminate, pistillate, and hermaphrodite flowers on same individual; condition of having more than one mate at a time.

polygene (pōl'ijen) *n.* [Gk. *polys*, many; *genos*, descent.] A gene or minor mutant controlling quantitative characters; buffering gene. *Opp.* oligogene.

polygenesis (pōl'ijen'ēsīs) *n.* [Gk. *polys*, many; *genesis*, descent.] Derivation from more than one source; origin of a new type at more than one place or time. *Opp.* monogenesis.

polygenetic (pōl'ijenēt'ik) *a.* [Gk. *polys*, many; *genesis*, descent.] Derived from more than one source; polyphyletic.

polygenic (pōl'ijē'nīk) *a.* [Gk. *polys*, many; *-genes*, producing.] Controlled by a number of genes; *pert.* polygenes; polygenetic, *q.v.*

polygerm (pōl'ijērm) *n.* [Gk. *polys*, many; L. *germen*, bud.] An isolated group of morulae.

polygoneutic (pōl'igōnū'tīk) *a.* [Gk. *polys*, many; *goneuein*, to beget.] Rearing more than one brood in a season.

polygynoecial (pōl'ijīnē'sīāl) *a.* [Gk. *polys*, many; *gyne*, woman; *oikos*, house.] Having multiple fruits formed by united gynoecia.

polygynous (pōl'ijī'nūs) *a.* [Gk. *polys*, many; *gyne*, female.] Consorting with more than one female at a time; with many styles.

polyhybrid (pōl'ihī'brīd) *n.* [Gk. *polys*, many; L. *hybrida*, mongrel.] A hybrid heterozygous for many genes.

polyisomeres (pōl'ī'sōmērz) *n. plu.* [Gk. *polys*, many; *isos*, equal; *meros*, part.] Parts all homologous with each other, as leaves of plants of the same species; *cf.* anisomeres, polyanisomere.

polykaric (pōl'īkār'īk) *a.* [Gk. *polys*, many; *karyon*, nut.] Multinucleate.

polykaryocyte (pōl'īkār'īōsīt) *n.* [Gk. *polys*, many; *karyon*, nut; *kytos*, hollow.] A multinucleate cell, of bone marrow.

polykaryon (pōl'īkār'īōn) *n.* [Gk. *polys*, many; *karyon*, nut.] A polyenergid nucleus; a nucleus with more than one centriole.

polykont (pōl'īkōnt) *a.* [Gk. *polys*, many; *kontos*, pole.] Multiflagellate.

polylecithal (pōl'īlēs'īthal) *a.* [Gk. *polys*, many; *lekithos*, yolk.] Containing relatively much yolk, as centrolecithal eggs; *cf.* megalecithal, mesolecithal, meiolecithal.

polylepιδous (pōl'īlēp'īdūs) *a.* [Gk. *polys*, many; *lēpis*, scale.] Having many scales.

polymastigote (pōl'īmāstī'gōt) *a.* [Gk. *polys*, many; *mastix*, whip.] Having flagella arranged in a tuft.

polymastism (pōl'īmās'tīzm) *n.* [Gk. *polys*, many; *mastos*, breast.] Oc-

currence of more than normal number of mammae; polymastia.

polymegaly (pōl'īmēg'ālī) *n.* [Gk. *polys*, many; *megalos*, greatly.] Occurrence of more than two sizes of sperm in one animal.

polymeniscous (pōl'īmēnīs'kūs) *a.* [Gk. *polys*, many; *meniskos*, small moon.] Having many lenses, as compound eye.

polymerous (pōlīm'ērūs) *a.* [Gk. *polys*, many; *meros*, part.] Consisting of many parts or members.

polymorph (pōl'īmōrf) *n.* [Gk. *polys*, many; *morphe*, form.] A polymorphonuclear leucocyte.

polymorphic,—polymorphous, *q.v.*

polymorphism (pōl'īmōr'fīzm) *n.* [Gk. *polys*, many; *morphe*, form.] Occurrence of different forms of individuals in same species; occurrence of different forms, or different forms of organs, in same individual at different periods of life.

polymorphonuclear (pōl'īmōr'fōnū'klēär) *a.* [Gk. *polys*, many; *morphe*, form; L. *nucleus*, kernel.] *Appl.* amoeboid leucocytes with multipartite nuclei connected by fine threads of chromatin.

polymorphous (pōl'īmōr'fūs) *a.* [Gk. *polys*, many; *morphe*, form.] Showing a marked degree of variation in body form, during the life history, or within the species; *pert.* or containing variously shaped units; *appl.* layer, the inner cell-lamina of cerebral cortex; polymorphic, pleomorphic; *cf.* monomorphic.

polynucleate (pōl'īnūklēät) *a.* [Gk. *polys*, many; L. *nucleus*, kernel.] Polykaric; multinucleate.

polyoestrous (pōl'ītē'strūs) *a.* [Gk. *polys*, many; *oistros*, gadfly.] Having a succession of oestrous periods in one sexual season; *cf.* monoestrous.

polyp (pōl'ip) *n.* [L. *polypus*, polyp.] A simple Actinozoön, or a separate zooid of a colony.

polyparium (pōl'ipā'rīüm) *n.* [L. *polypus*, polyp.] The common base and connecting tissue of a colony of polyps; polypary.

polypetalous (pöl'ipët'älüs) *a.* [Gk. *polys*, many; *petalon*, leaf.] Having separate, free, or distinct petals.

polyphagous (pölif'ägüs) *a.* [Gk. *polys*, many; *phagein*, to eat.] Eating various kinds of food; of insects, using many different food plants; *cf.* monophagous, oligophagous, stenophagous; of Sporozoa, passing different phases of life-history in different cells.

polyphyletic (pöl'ifilët'ik) *a.* [Gk. *polys*, many; *phylon*, race.] Convergent, as *appl.* a group; combining characteristics of more than one ancestral type through independent acquisition; having origin from several lines of descent; *cf.* oligophyletic, monophyletic.

polyphyllous (pöl'ifil'üs) *a.* [Gk. *polys*, many; *phyllon*, leaf.] Many-leaved.

polyphyodont (pöl'ifri'ödönt) *a.* [Gk. *polyphyes*, manifold; *odous*, tooth.] Having many successive sets of teeth.

polypide (pöl'ipid) *n.* [L. *polypus*, polyp.] An individual or person of a zooid colony; polypite.

polyplanetic (pöl'iplänët'ik) *a.* [Gk. *polys*, many; *planeies*, wanderer.] Having several motile phases with intervening resting stages.

polyplastic (pöl'ipläs'tik) *a.* [Gk. *polys*, many; *plastos*, formed.] Capable of assuming many forms.

polyploid (pöl'iploid) *a.* [Gk. *polys*, many; *aploos*, onefold; *eidōs*, form.] With a reduplication of the chromosome number, as triploid, tetraploid, etc., having three, four, etc., times the normal haploid or gametic number; exhibiting polyploidy. *n.* An organism with more than two chromosome sets.

polypneustic (pöl'inü'stik, -pnü-) *a.* [Gk. *polys*, many; *pnein*, to breathe.] *Appl.* lateral lobes bearing multiple spiracle pores, in certain insects.

polypod (pöl'ipöd) *a.* [Gk. *polys*, many; *pous*, foot.] Furnished with many feet or legs; *appl.* larva, as of Lepidoptera; polypodous.

polypoid (pöl'ipoid) *a.* [L. *polypus*, polyp; Gk. *eidōs*, form.] Polyp-like.

polyprotodont (pöl'iprō'tödönt) *a.* [Gk. *polys*, many; *protos*, first; *odous*, tooth.] With four or five incisors on each side of upper jaw, and one or two fewer on lower.

polyrhizal (pöl'iri'zäl) *a.* [Gk. *polys*, many; *rhiza*, root.] With many roots or rootlets; polyrhizous.

polysaccharides (pöl'isäk'äridz) *n. plu.* [Gk. *polys*, many; L. *saccharum*, sugar.] Polymers of sugars, having large molecules, *e.g.* vegetable gums, starches, cellulose, hemicelluloses, etc.

polysepalous (pöl'isēp'älüs) *a.* [Gk. *polys*, many; F. *sépale*, sepal.] Having free or distinct sepals.

polysiphonic (pöl'isifōn'ik) *a.* [Gk. *polys*, many; *siphon*, tube.] *Appl.* a hydromedusa stem consisting of several hydrocauli bound together.

polysomic (pöl'isō'mik) *a.* [Gk. *polys*, many; *soma*, body.] Having one or more chromosomes, not the entire set, in the polyploid state; *pert.* a number of homologous genes.

polysomic (pöl'isōmit'ik) *a.* [Gk. *polys*, many; *soma*, body; *temnein*, to cut.] Having many body-segments; formed from fusion of primitive body segments.

polysomy (pölisō'mi) *n.* [Gk. *polys*, many; *soma*, body.] The polysomic condition.

polyspermous (pöl'ispēr'müs) *a.* [Gk. *polys*, many; *sperma*, seed.] Having many seeds.

polyspermy (pöl'ispēr'mi) *n.* [Gk. *polys*, many; *sperma*, seed.] Entry of several sperms into one ovum.

polyspondyly (pöl'ispōn'dilit) *n.* [Gk. *polys*, many; *sphondylos*, vertebra.] Condition of having vertebral parts multiple where myotome has been lost; *cf.* diplospondyly.

polysporic,— polysporous.

polysporocystid (pöl'ispörōsis'tid) *n.* [Gk. *polys*, many; *sporos*, seed; *kystis*, bladder; *eidōs*, form.] *Appl.* oocyst of Sporozoa when more than four sporocysts are present.

polysporous (pöl'ispō'rūs) *a.* [Gk. *polys*, many; *sporos*, seed.] Many-seeded; many-spored.

polystachyous (pōl'istāk'īūs) *a.* [Gk. *polys*, many; *stachys*, ear of corn.] With numerous spikes.

polystelic (pōl'istēl'ik) *a.* [Gk. *polys*, many; *stela*, post.] With several steles.

polystely (pōl'istē'li) *n.* [Gk. *polys*, many; *stela*, post.] Arrangement of axial vascular tissue in several steles, each containing more than one vascular bundle.

polystemonous (pōl'istēm'ōnūs) *a.* [Gk. *polys*, many; *stemon*, warp.] Having stamens more than double the number of petals or sepals.

polystichous (pōl'istikūs) *a.* [Gk. *polys*, many; *stichos*, row.] Arranged in numerous rows or series.

polystomatous (pōl'istōm'ātūs) *a.* [Gk. *polys*, many; *stoma*, mouth.] Having many pores, mouths, openings, or suckers; many-mouthed, as Discomedusae and sponges.

polystomium (pōl'istō'miūm) *n.* [Gk. *polys*, many; *stoma*, mouth.] A suctorial mouth of Discomedusae.

polystylar (pōl'isti'lār) *a.* [Gk. *polys*, many; *stylos*, pillar.] Many-styled.

polysymmetrical (pōl'isimēt'rikāl) *a.* [Gk. *polys*, many; *symmetria*, due proportion.] Divisible through several planes into bilaterally symmetrical portions.

polytene (pōl'itēn) *a.* [Gk. *polys*, many; *tainia*, band.] *Appl.* chromosome resulting from close association of products of paired multiple chromosomes; *appl.* theory of origin of giant chromosomes, by multiplication of chromonemata.

polythalamous (pōl'ithāl'āmūs) *a.* [Gk. *polys*, many; *thalamos*, chamber.] Aggregate or collective, as *appl.* fruits; *appl.* galls; *appl.* shells made up of many chambers formed successively.

polythelia (pōl'ithē'liā) *n.* [Gk. *polys*, many; *thela*, nipple.] The occurrence of supernumerary nipples.

polythermic (pōl'ithēr'mik) *a.* [Gk. *polys*, much; *therme*, heat.] Tolerating relatively high temperatures.

polytocous (pōlit'ōkūs) *a.* [Gk. *polys*, many; *tokos*, offspring.] Prolific; producing several young at a birth; fruiting repeatedly; caulocarpous.

polytomous (pōlit'ōmūs) *a.* [Gk. *polys*, many; *tome*, cutting.] Having more than two secondary branches.

polytopic (pōl'itōp'ik) *a.* [Gk. *polys*, many; *topos*, place.] Occurring or originating in several places.

polytrichous (pōlit'rikūs) *a.* [Gk. *polys*, many; *thrix*, hair.] Having the body covered with an even coat of cilia, as certain infusorians; having many hair-like outgrowths.

polytrochal (pōlit'rōkāl) *a.* [Gk. *polys*, many; *trochos*, wheel.] Having several circlets of cilia between mouth and posterior end, as in certain annulates; polytrochous.

polytrophic (pōl'itrōf'ik) *a.* [Gk. *polys*, many; *trophē*, nourishment.] *Appl.* ovariole in which nutritive cells are enclosed in oocyte follicles; nourished by more than one organism or substance; obtaining food from many sources.

polytropic (pōl'itrōp'ik) *a.* [Gk. *polys*, many; *tropikos*, turning.] Turning in many directions; infecting many kinds of tissue, *appl.* viruses; pantropic.

polytypic (pōl'itip'ik) *a.* [Gk. *polys*, many; *typos*, type.] Having or *pert.* many types; *appl.* species having geographical subspecies; *appl.* genus having several species; *opp.* monotypic.

polyvoltine (pōl'ivōl'tīn) *a.* [Gk. *polys*, many; It. *volta*, time.] Producing several broods in one season, *appl.* certain silkworms.

polyxylic (pōlizi'lik) *a.* [Gk. *polys*, many; *xylon*, wood.] Having many xylem strands and several concentric vascular rings; *appl.* stem, as in Cycadales.

polyzoarium (pōl'izōā'riūm) *n.* [Gk. *polys*, many; *zoon*, animal.] The skeletal system of a polyzoan colony; the colony itself.

- polyzoic** (pöl'izō'ik) *a.* [Gk. *polys*, many; *zoon*, animal.] *Appl.* a colony of many zooids; *appl.* a spore containing many sporozoites.
- polyzoid** (pöl'izō'oid) *n.* [Gk. *polys*, many; *zoon*, animal; *eidōs*, form.] An individual in a polyzoan colony.
- pome** (pōm) *n.* [L. *pomum*, apple.] An inferior, indehiscent, two or more celled fleshy fruit.
- pompetta** (pōmpēt'ā) *n.* [It. *pompetta*, little pump.] An organ forcing spermatozoa into penis, as in Phlebotomus; sperm pump.
- pomum Adami**,—laryngeal prominence, ridge of thyroid cartilage in front of neck, more pronounced in males.
- ponogen** (pōn'ōjēn) *n.* [Gk. *ponos*, toil; *gennaiein*, to produce.] Waste matter produced by exertion; fatigue poison.
- pons** (pōnz) *n.* [L. *pons*, bridge.] A structure connecting two parts; pons Varolii, *q.v.*
- pons Varolii** (pōnz vārō'līi) *n.* [L. *pons*, bridge; *C. Varolio* or *Varolius*, Italian anatomist.] Broad band of white fibres connecting cerebrum, cerebellum and medulla oblongata, and including the pontine nuclei of grey matter.
- pontal, pontic, pontile, pontine**,—*pert.* a pons or the pons Varolii.
- ponticulus** (pōntik'ülūs) *n.* [L. *ponticulus*, small bridge.] A vertical ridge on auricular cartilage; propions, *q.v.*
- popliteal** (pōplit'ēāl, pōp'lītē'āl) *a.* [L. *poples*, ham.] *Pert.* region behind and above knee-joint; *appl.* artery, glands, vein, muscle, etc.
- popliteal nerve**,—internal or medial, the tibial nerve; external or lateral, the common peroneal nerve.
- porcellaneous** (pōr'sēlānūs) *a.* [F. *porcelaine*, from It. *porcellana*, Venus shell.] Resembling porcelain, white and opaque; *appl.* calcareous shells, as of Foraminifera, certain Mollusca, etc.
- pore** (pōr) *n.* [Gk. *poros*, channel.] A minute opening or interstice, as of the skin, sieve-plates, stomata, etc.
- pore-canal**,—minute spiral tubules passing through the cuticle, but not the epicuticle, of insects.
- pore-organ**,—structure surrounding canal for excretion of mucilage through pores, in desmids.
- pore-rhombs**,—canals grouped in half rhombs on each of two adjoining plates of calyx in Cystidea.
- poricidal** (pō'risi'dāl) *a.* [Gk. *poros*, channel; L. *caedere*, to cut.] Dehiscing by valves or pores, as fruit of poppy, stamens of ling.
- poriferous** (pōrif'ērūs) *a.* [Gk. *poros*, channel; L. *ferre*, to bear.] Furnished with numerous openings.
- poriform** (pō'riform) *a.* [Gk. *poros*, channel; L. *forma*, shape.] Resembling a pore.
- porocyte** (pō'rōsit) *n.* [Gk. *poros*, channel; *kytos*, hollow.] A perforated cell of Porifera.
- porogam** (pō'rōgām) *n.* [Gk. *poros*, channel; *gamos*, marriage.] A plant whose pollen-tube enters ovule by micropyle, *opp.* chalazogam.
- porogamy** (pōrōg'āmi) *n.* [Gk. *poros*, channel; *gamos*, marriage.] Entrance of a pollen-tube into ovule by micropyle to secure fertilisation *opp.* aporogamy.
- poroids** (pō'roidz) *n. plu.* [Gk. *poros*, channel; *eidōs*, shape.] Minute depressions in theca of dinoflagellates and diatoms.
- porophyllous** (pō'rōfil'ūs) *a.* [Gk. *poros*, channel; *phyllon*, leaf.] Having, or *appl.*, leaves with numerous transparent spots.
- porphyrins** (pōr'firinz) *n. plu.* [Gk. *porphyra*, purple.] Certain coloured organic compounds which combine with metals to form respiratory pigments and catalysts.
- porphyrophore** (pōr'firōfōr') *n.* [Gk. *porphyra*, purple; *pherein*, to bear.] A reddish-purple pigment-bearing cell.
- porphyropsin** (pōrfirōp'sin) *n.* [Gk. *porphyra*, purple; *opsis*, sight.] Visual purple, a retinal pigment in fishes.

porrect (pörëkt') *a.* [L. *porrectus*, stretched out.] Extended outwards.

porta (pör'tä) *n.* [L. *porta*, gate.] A gate-like structure, as transverse fissure of liver; hilum.

portal (pör'täl) *a.* [L. *porta*, gate.] *Appl.* a system of veins draining alimentary canal, spleen, and pancreas to the liver; also a system to kidney in lower vertebrates.

portio (pör'tiö, pör'shiö) *n.* [L. *portio*, portion.] A part or portion of a nerve, blood-vessel, etc.

position-effect, — effect due to relative position of a gene or genes within the chromosome.

positive tropism, — tendency to move towards a source of stimulus.

postabdomen (pöst'äbdö'mën) *n.* [L. *post*, after; *abdomen*, belly.] In scorpions, metasoma or posterior narrower five segments of abdomen; anal tubercle in spiders.

postanal (pöstä'näl) *a.* [L. *post*, after; *anus*, vent.] Situated behind anus.

postantennal (pöstäntën'äl) *a.* [L. *post*, after; *antenna*, sail-yard.] Situated behind antennae; *appl.* a sensory organ in Myriopoda and Collembola, organ of Tömövary.

postaxial (pöstäk'siäl) *a.* [L. *post*, after; *axis*, axle.] On posterior side of axis; as on fibular side of leg.

postbacillary (pöst'bäsil'äri) *a.* [L. *post*, after; *bacillum*, small staff.] Having nuclei behind sensory zone of retinal cells; *appl.* ocellus, inverted eye, as of spiders. *Opp.* prebacillary.

postbranchial (pöstbräng'kiäl) *a.* [L. *post*, after; *branchiae*, gills.] Behind gill-clefts; *appl.* a structure arising in pharynx; *appl.* bodies: the ultimobranchial bodies.

postcardinal (pöstkär'dinäl) *a.* [L. *post*, after; Gk. *kardia*, heart.] Behind region of heart; *appl.* a dorsal vein.

postcava (pöstkä'vä) *n.* [L. *post*, after; *cavus*, hollow.] The inferior or posterior vena cava of vertebrates above fishes; postcaval vein.

postcentral (pöstsën'träl) *a.* [L. *post*, after; *centrum*, centre.] Behind central region; *appl.* a cerebral sulcus, part of intraparietal sulcus.

postcentrum (pöstsën'trüm) *n.* [L. *post*, after; *centrum*, centre.] The posterior part of vertebral centrum of certain vertebrates.

postcerebral (pöstsër'ëbräl) *a.* [L. *post*, after; *cerebrum*, brain.] Posterior to the brain; *appl.* cephalic salivary glands, as in Hymenoptera.

postclavicle (pöstkläv'ikl) *n.* [L. *post*, after; *clavicula*, small key.] A membrane bone occurring in shoulder girdle of some higher ganoids and teleosts; also postcleithrum.

postclitellian (pöst'klitël'iän) *a.* [L. *post*, after; *clitellae*, pack-saddle.] Situated behind clitellum.

postclival (pöstkli'väl) *a.* [L. *post*, after; *clivus*, hill.] *Appl.* fissure behind clivus of cerebellum.

postclypeus (pöstklip'ëüs) *n.* [L. *post*, after; *clypeus*, shield.] The posterior part of clypeus of an insect; *cf.* anteclypeus.

postcolon (pöst'kölön) *n.* [L. *post*, after; *colon*, colon.] Part of gut between colon and rectum in certain mites.

postcornual (pöstkör'nüäl) *a.* [L. *post*, after; *cornu*, horn.] *Appl.* glands situated behind horns, as in chamois.

postcranial (pöstkrä'niäl) *a.* [L. *post*, after; *cranium*, skull.] *Appl.* area of posterior head region.

postdicrotic (pöst'dikröt'ik) *a.* [L. *post*, after; Gk. *dis*, twice; *krotein*, to beat.] *Appl.* a secondary wave of a pulse, or that succeeding the dicrotic.

postembryonic (pöst'ëmbriön'ik) *a.* [L. *post*, after; Gk. *embryon*, foetus.] *Pert.* the age or stages succeeding the embryonic.

posterior (pöstë'riör) *a.* [L. *posterior*, latter.] Situated behind or dorsally; behind the axis; superior, or next the axis.

posterolateral (pös'tērölät'ēräl) *a.* [L. *posterus*, following; *latus*, side.] Placed posteriorly and towards the side; *appl.* arteries.

posteromedial (pös'tērömē'diäl) *a.* [L. *posterus*, following; *medius*, middle.] Placed posteriorly and medianly; *appl.* arteries.

postesophageal,—postoesophageal.

postflagellate (pöstfläj'ēläť) *a.* [L. *post*, after; *flagellum*, lash.] *Appl.* forms of trypanosome intermediate between flagellates and cyst.

postfrons (pöstfröns) *n.* [L. *post*, after; *frons*, forehead.] Portion of frons posterior to antennary base line in insects.

postfrontal (pöstfrün'täl) *a.* [L. *post*, after; *frons*, forehead.] *Appl.* a bone occurring behind orbit of some vertebrates.

postfurca (pöstfür'kä) *n.* [L. *post*, after; *furca*, fork.] A posterior sternal furca of an insect.

postganglionic (pöstgäng'gliön'ik) *a.* [L. *post*, after; Gk. *gangglion*, tumour.] *Appl.* autonomic nerve-fibres issuing from ganglia; *cf.* preganglionic.

postgena (pöstjēn'ä) *n.* [L. *post*, after; *gena*, cheek.] Posterior portion of insect gena.

postglenoid (pöstglē'noid) *a.* [L. *post*, after; Gk. *glene*, socket.] Behind the glenoid fossa; *appl.* a process or tubercle.

posthepatic (pöst'hēpät'ik) *a.* [L. *post*, after; Gk. *hepar*, liver.] *Appl.* latter part of alimentary canal, that from liver to end.

postheterokinesis (pösthēt'ēröklñē'sis) *n.* [L. *post*, after; Gk. *heteros*, other; *kinesis*, movement.] Case of meiosis in which the sex-chromosome passes undivided to one pole in the second spermatocyte division.

posticous (pösti'küś, pös'tiküś) *a.* [L. *posticus*, behind.] On outer or posterior surface; extrorse; postical.

postischium (pöstis'kiüm) *n.* [L. *post*, after; Gk. *ischion*, hip.] A lateral process on hinder side of ischium of some reptiles.

postlabrum (pöstlä'brüm) *n.* [L. *post*, after; *labrum*, lip.] Posterior portion of insect labrum, where differentiated.

postmentum (pöst'mēntüm) *n.* [L. *post*, after; *mentum*, chin.] The united cardines constituting the base of labium of insects.

postminimus (pöstmīn'īmūs) *n.* [L. *post*, after; *minimus*, smallest.] A rudimentary additional digit occurring occasionally in amphibians and mammals.

postmitotic (pöstmitöt'ik) *n.* [L. *post*, after; Gk. *mitos*, thread.] A cell with individual life originating in mitosis and ending at death; *cf.* intermitotic.

postneural (pöstnū'räl) *a.* [L. *post*, after; Gk. *neuron*, nerve.] Pygal, *appl.* plates of chelonian carapace.

postnodular (pöstnöd'ülär) *a.* [L. *post*, after; *nodulus*, small knot.] *Appl.* a cerebellar fissure between nodule and uvula.

postnotum (pöstnō'tüm) *n.* [L. *post*, after; Gk. *noton*, back.] Post-scutellum.

postoesophageal (pöst'ēsöfäj'ēäl) *a.* [L. *post*, after; Gk. *oisophagos*, gullet.] *Appl.* commissure connecting ganglia of tritocerebrum; postesophageal.

postoral (pöst'öräl) *a.* [L. *post*, after; *os*, mouth.] Behind the mouth; *appl.* appendages of arthropods. *Opp.* preoral.

postorbital (pöstör'bitäl) *a.* [L. *post*, after; *orbis*, circle.] Behind the orbit; *appl.* bone forming part of posterior wall of orbit; *appl.* luminescent organ in certain fishes.

postotic (pöstō'tik) *a.* [L. *post*, after; Gk. *ous*, ear.] Behind the ear; *appl.* a system of nerves.

postparietal (pöst'päri'etäl) *a.* [L. *post*, after; *paries*, wall.] *Appl.* paired bones sometimes occurring between parietal and interparietal.

postpatagium (pöst'pätäj'iüm) *n.* [L. *post*, after; *patagium*, border.] In birds, small fold of skin extending between upper arm and trunk.

postpermanent (pōstpér'mānēnt) *a.* [L. *post*, after; *permanens*, remaining.] *Appl.* traces of a dentition succeeding the permanent.

postphragma (pōstfrāg'mā) *n.* [L. *post*, after; *phragma*, fence.] A phragma developed in relation with a postnotum in insects.

postpituitary (pōst'pitū'itārī) *a.* [L. *post*, after; *pituita*, phlegm.] *Pert.* or secreted by posterior lobe of the hypophysis or pituitary gland.

postpubic (pōstpū'bik) *a.* [L. *post*, after; *pubes*, adult.] At posterior end of pubis; *appl.* processes of pubis parallel to ischium.

postpubis (pōstpū'bis) *n.* [L. *post*, after; *pubes*, adult.] A ventral process or bone of pelvic girdle in some Sauropsida.

postpyramidal (pōst'pīrām'idāl) *a.* [L. *post*, after; *pyramis*, pyramid.] Behind the pyramid; *appl.* a cerebellar fissure.

postretinal (pōstrēt'ināl) *a.* [L. *post*, after; *retina*, from *rete*, net.] Situated behind the retina; *appl.* nerve fibres connecting periophticon and inner ends of ommatidia.

postscutellum (pōst'skutēl'ūm) *n.* [L. *post*, after; *scutellum*, small shield.] A projection under meso-scutellar lobe of insects, the base of mesophragma; sclerite behind scutellum; postnotum, pseudo-notum.

postsegmental (pōst'sēgmēn'tāl) *a.* [L. *post*, after; *segmentum*, piece.] Posterior to body segments or somites, *opp.* presegmental.

postsphenoid (pōstsfē'noid) *n.* [L. *post*, after; Gk. *sphen*, wedge; *eidos*, form.] The posterior part of sphenoid.

poststernellum (pōst'stērnēl'ūm) *n.* [L. *post*, after; *sternum*, breast-bone.] Most posterior portion of an insect sternite.

poststernite (pōststēr'nīt) *n.* [L. *post*, after; *sternum*, breast-bone.] Posterior sternal sclerite of insects; sternellum.

post-temporal (pōst-tēm'pōrāl) *a.*

[L. *post*, after; *tempora*, temples.] Behind temporal bone; *appl.* bone and fossa.

post-trematic (pōst-trēmāt'ik) *a.* [L. *post*, after; Gk. *trema*, hole.] Post-branchial; *appl.* nerves running in posterior wall of first gill cleft to pharynx.

postzygapophysis (pōst'zīgāpōf'isis) *n.* [L. *post*, after; Gk. *zygon*, yoke; *apo*, from; *physis*, growth.] An articular process on posterior face of neural arch for articulation with following vertebra.

potamoplankton (pōt'āmōplāngk'tōn) *n.* [Gk. *potamos*, river; *planktos*, wandering.] The plankton of streams and their backwaters.

potential (pōtēn'shāl) *a.* [L. *potens*, powerful.] Latent, as *appl.* characteristics.

pouch (powch) *n.* [O.F. *poche*, bag.] A bag-like structure; a sac or bladder, as pharyngeal pouches, marsupial pouch; a pod.

Poupart's ligament [F. *Poupart*, French anatomist]. The inguinal ligament.

powder-down feathers, — those which do not develop beyond the early stage, and in which the tips of barbs disintegrate into powder.

prae-, —also pre-

praeabdomen (prē'ābdō'mēn) *n.* [L. *prae*, before; *abdomen*, belly.] The anterior, broader part of abdomen of scorpions; mesosoma.

prae-auricular (prē'ōrik'ulār) *a.* [L. *prae*, before; *auricula*, small ear.] *Appl.* a sulcus at anterior part of auricular surface of hip-bone.

praeaxial (prēāk'siāl) *a.* [L. *prae*, before; *axis*, axle.] On anterior border or surface.

prae centrum (prēsēn'trūm) *n.* [L. *prae*, before; *centrum*, centre.] The anterior part of the vertebral centrum of certain lower vertebrates.

praecoces (prēkō'sēz) *n. plu.* [L. *prae*, before; *coquere*, to cook.] Newly-hatched birds able to take care of themselves; *cf.* altrices.

praecostal (prĕkōs'tāl) *a.* [*L. prae*, before; *costa*, rib.] *Appl.* short spurs on basal portion of hind wing of Lepidoptera.

praecoxa (prĕkōk'sā) *n.* [*L. prae*, before; *coxa*, hip.] Subcoxa.

praecrural (prĕkroor'āl) *a.* [*L. prae*, before; *crus*, leg.] On anterior side of leg or thigh.

praecuneus (prĕkū'nēūs) *n.* [*L. prae*, before; *cuneus*, wedge.] The medial surface of parietal lobe, or quadrate lobe of cerebrum.

praemorse (prēmōrs') *a.* [*L. prae-morsus*, bitten off.] With irregular and abrupt termination, as if end were bitten off; premorse.

praecoccipital (prĕ'ōksip'itāl) *a.* [*L. prae*, before; *occiput*, back of head.] *Appl.* an indentation or notch in front of posterior end of cerebral hemispheres; pre-occipital.

praeoral (prĕō'rāl) *a.* [*L. prae*, before; *os*, mouth.] *Pert.* part of body of a larva anterior to mouth; *appl.* process, loop, lobe, ciliated rings; preoral.

praepubic (prĕpū'bik) *a.* [*L. prae*, before; *pubes*, mature.] On anterior part of pubis; *appl.* elongated processes of pubis of certain vertebrates.

praeputial (prĕpū'shiāl) *a.* [*L. prae-putium*, foreskin.] *Pert.* the praepuce; *appl.* glands, sac; preputial.

praeputium (prĕpū'shūm) *n.* [*L. praeputium*, foreskin.] Foreskin; part of integument of penis which leaves surface at neck and is folded upon itself; prepuce; fold of labia minora over glans clitoridis.

praescutum (prĕskū'tūm) *n.* [*L. prae*, before; *scutum*, shield.] The anterior part of notum of an insect thoracic ring.

praesphenoid (prĕsfē'noid) *n.* [*L. prae*, before; *Gk. sphen*, wedge.] The anterior part of sphenoid.

praesternal (prĕstēr'nāl) *a.* [*L. prae*, before; *sternum*, breast-bone.] *Appl.* jugular notch, on superior border of sternum.

praetarsus (prētār'sūs) *n.* [*L. prae*, before; *tarsus*, ankle.] Terminal outgrowth on tarsus of insects and spiders.

pratral (prā'tāl) *a.* [*L. pratum*, meadow.] *Pert.* meadows; *appl.* flora of rich humid grass-lands.

pre,—also *prae*—

preadaptation (prĕ'ādāptā'shūn) *n.* [*L. prae*, before; *ad*, to; *aptare*, to fit.] Constitutional predisposition of an organism to fit into a different environment; adaptation of a mutant to particular conditions.

pre-anal (prĕā'nāl) *a.* [*L. prae*, before; *L. anus*, anus.] Anterior to anus; *appl.* commissures, in Nematoda.

preantenna (prĕ'āntēn'ā) *n.* [*L. prae*, before; *antenna*, sail-yard.] One of the pair of feelers on the first segment in Onychophora.

pre-axial (prĕāk'siāl) *a.* [*L. prae*, before; *axis*, axle.] In front of the axis.

prebacillary (prĕ'bāsīl'āri) *a.* [*L. prae*, before; *bacillum*, small staff.] Having nuclei distal to sensory zone of retinal cells; *appl.* ocellus, converted or erect eye, as of spiders. *Opp.* postbacillary.

prebasilare (prĕ'bāzīlārē) *n.* [*L. prae*, before; *basis*, base.] Transverse sclerite between mentum of gnathochilarium and first body sternite, in certain Diplopoda.

precapillary (prĕ-kāpīl'āri) *a.* [*L. prae*, before; *capillus*, hair.] *Appl.* arterioles having an incomplete muscular layer.

precartilage (prĕ'kārtīlēj) *n.* [*L. prae*, before; *cartilago*, gristle.] Type of cartilage preceding formation of other kinds, or persisting as in fin rays of certain fishes.

precava (prĕkā'vā) *n.* [*L. prae*, before; *cavus*, hollow.] The superior or anterior vena cava; precaval vein.

precentral (prĕsēn'trāl) *a.* [*L. prae*, before; *centrum*, centre.] Anteriorly to centre; *appl.* a sulcus parallel to central sulcus of cerebrum; *appl.* gyrus.

precheliceral (prĕ'kĕlĭs'ĕral) *a.* [L., *prae*, before; *chele*, claw; *keras*, horn.] Anterior to chelicerae; *appl.* segment of mouth region or gnathosoma in Arachnoidea.

prechordal (prĕkôr'dāl) *a.* [L. *prae*, before; Gk. *chordē*, cord.] Anteriorly to notochord or spinal cord; *appl.* part of base of skull.

precipitins, — specific antibodies in immune serum which form precipitates with their respective antigens; *e.g.* bacterio-, haemato-, lacto-, myco-, phyto-, zooprecipitin.

preclavia (prĕklā'viā) *n.* [L. *prae*, before; *clavis*, key.] An element of pectoral girdle.

preclimax (prĕkli'māks) *n.* [L. *prae*, before; Gk. *klimax*, ladder.] The plant community immediately preceding the climax community; *cf.* proclimax.

preclival (prĕkli'vāl) *a.* [L. *prae*, before; *clivus*, hill.] *Appl.* fissure in front of clivus of cerebellum.

precoracoid (prĕkôr'ākoid) *n.* [L. *prae*, before; Gk. *korax*, crow.] An anterior ventral bone of pectoral girdle.

precoxa,—subcoxa, *q.v.*

precursor (prĕkūr'sŏr) *n.* [L. *prae-cursor*, forerunner.] The substance which precedes the formation of a compound.

precystic (prĕsĭs'tĭk) *a.* [L. *prae*, before; Gk. *kystis*, bladder.] *Appl.* small forms appearing before the encystment stage in some protozoa.

predelineation (prĕ'dĕlĭnĕā'shŭn) *n.* [L. *prae*, before; *de*, down; *linea*, line.] Formation and individualisation of various physiological molecules in definite areas and substances of undeveloped egg,—theory of germinal localisation.

predentary (prĕdĕn'tārĭ) *n.* [L. *prae*, before; *dens*, tooth.] A bone at tip of jaw of many dinosaurs.

predentin (prĕdĕn'tĭn) *n.* [L. *prae*, before; *dens*, tooth.] Substance of fibrils or Korff's fibres which changes into dentin.

predigital (prĕdĭj'ĭtāl) *n.* [L.

prae, before; *digitus*, finger.] A primary wing-quill connected with distal phalanx of second digit.

pre-epistome (prĕĕp'ĭstŏm) *n.* [L. *prae*, before; Gk. *epi*, upon; *stoma*, mouth.] A plate covering basal portion of epistome of certain Arachnoidea.

prefemur (prĕ'fĕmŭr) *n.* [L. *prae*, before; *femur*, thigh.] Second trochanter, as in walking legs of Pycnogonida.

preflagellate (prĕflāj'ĕlāt) *a.* [L. *prae*, before; *flagellum*, lash.] *Appl.* forms of trypanosomes intermediate between cyst and elongate flagellates.

prefloration (prĕ'flŏrā'shŭn) *n.* [L. *prae*, before; *flos*, flower.] The form and arrangement of floral leaves in the flower-bud; ptyxis and aestivation.

prefoliation (prĕ'fŏlĭā'shŭn) *n.* [L. *prae*, before; *folium*, leaf.] The form and arrangement of foliage leaves in the bud; ptyxis and veneration.

preformation theory,—theory according to which it was supposed that each ovum of an animal contained a miniature adult, and that nourishment only was required to develop it into the perfect forms.

prefrontal (prĕfrŭn'tāl) *a.* [L. *prae*, before; *frons*, forehead.] *Appl.* a bone anterior to frontal of certain vertebrates; *appl.* paired plates or scales anterior to frontal scale in some reptiles.

pregammatation (prĕ'gāmā'shŭn) *n.* [L. *prae*, before; *gammatation*, *dim.* of *γ*.] A bar in front of the gammatation in Palaeospondylus.

preganglionic (prĕgāng'glĭŏn'ĭk) *a.* [L. *prae*, before; Gk. *ganglion*, tumour.] *Appl.* medullated fibres from spinal cord, ending in synapses around sympathetic ganglion cells.

pregenital (prĕjĕn'ĭtāl) *a.* [L. *prae*, before; *genitalis*, *pert.* generation.] Situated anterior to genital opening; *appl.* segment behind fourth pair of walking legs in Arachnoidea.

preglobulin (prēglōb'ūlin) *n.* [L. *prae*, before; *globulus*, small globe.] A compound proteid of white blood corpuscles.

pregnancy cells,—modified oxyphil cells of anterior lobe of hypophysis, multiplying during pregnancy.

prehallux (prēhāl'ūks) *n.* [L. *prae*, before; *hallux*, great toe.] A rudimentary additional digit on hind limb.

prehalteres (prēhāl'tērēz) *n. plu.* [L. *prae*, before; Gk. *halter*, weight.] The squamae of Diptera.

prehastorium (prē'hōstō'rīum) *n.* [L. *prae*, before; *haurire*, to drink.] A rudimentary root-like sucker.

prehensile (prēhēn'sil) *a.* [L. *prehendere*, to seize.] Adapted for holding, as a suctorial tentacle.

prehepatic (prē'hēpāt'ik) *a.* [L. *prae*, before; Gk. *hepar*, liver.] *Appl.* part of digestive tract anterior to liver.

preheterokinesis (prēhēt'ērōkīnē'sis) *n.* [L. *prae*, before; Gk. *heteros*, other; *kinesis*, movement.] Case of meiosis in which the sex-chromosome passes undivided to one pole in the first spermatocyte division.

prehyoid (prēhī'oid) *a.* [L. *prae*, before; Gk. *hyoeides*, T-shaped.] Mandibulo-hyoid; *appl.* cleft between mandible and ventral parts of hyoid arch.

preinterparietal (prēin'tērpārī'ētāl) *n.* [L. *prae*, before; *inter*, between; *paries*, wall.] One of two small upper membranous centres of formation of supraoccipital.

prelacteal (prēlāk'tēāl) *a.* [L. *prae*, before; *lac*, milk.] *Pert.* a dentition which may occur previous to the milk dentition.

prelocalisation (prēlō'kālīzā'shūn) *n.* [L. *prae*, before; *locus*, place.] The theory that certain portions of ovum are predestined to develop into certain organs or parts.

premandibular (prē'māndīb'ūlār) *a.* [L. *prae*, before; *mandibulum*, jaw.] Anterior to mandible; *appl.*

somites of Amphioxus; *appl.* a bone of certain reptiles.

premaxilla (prē'māksil'ā) *n.* [L. *prae*, before; *maxilla*, jaw.] A paired bone anterior to maxilla in most vertebrates; os incisivum.

premaxillary (prē'māksil'ārī) *a.* [L. *prae*, before; *maxilla*, jaw.] Anterior to maxilla; *pert.* premaxilla.

premedian (prēmē'diān) *a.* [L. *prae*, before; *medius*, middle.] Anterior to middle of body or part; *appl.* a head-plate in certain primitive fishes; *appl.* vein in front of median vein of certain insect wings.

prementum (prēmēntūm) *n.* [L. *prae*, before; *mentum*, chin.] The united stipites bearing ligula and labial palps of insects.

premolar (prēmō'lār) *a.* [L. *prae*, before; *mola*, mill.] *Appl.* teeth developed between canines and molars, bicuspid teeth.

premorse,—*præcmorse*.

prenasal (prēnā'zāl) *a.* [L. *prae*, before; *nasus*, nose.] *Appl.* a bone developed in septum in front of mesethmoid in certain skulls; rostral.

preocular (prēōk'ūlār) *a.* [L. *prae*, before; *oculus*, eye.] Anterior to the eye, as antennae, scales.

preopercular (prē'ōpēr'kūlār) *a.* [L. *prae*, before; *operculum*, cover.] Anterior to gill-cover; *appl.* luminescent organ in certain fishes; *appl.* bone: the preoperculum.

preoperculum (prē'ōpēr'kūlūm) *n.* [L. *prae*, before; *operculum*, cover.] Anterior membrane bone of operculum or gill-cover; preopercle.

preoptic nerve,—*nervus terminalis* or terminal nerve, *q.v.*

preoral (prēō'rāl) *a.* [L. *prae*, before; *os*, mouth.] Situated in front of mouth; *appl.* cilia, etc.; *appl.* food cavity, the anterior part of the 'buccal cavity,' between labrum, prementum and mandibles, in insects.

preorbital (prēōr'bītāl) *a.* [L. *prae*, before; *orbis*, circle.] Anterior to orbit; *appl.* a membrane bone of teleosts; *appl.* glands in ruminants.

preparietal (prēpāri'ētāl) *n.* [L. *prae*, before; *paries*, wall.] A bone in front of parietals in some extinct reptiles.

prepatagium (prēpātāj'ium) *n.* [L. *prae*, before; *patagium*, border.] The alar membrane, or fold of skin extending between upper arm and forearm of birds.

prepatellar (prē'pātēl'ār) *a.* [L. *prae*, before; *patella*, knee-pan.] *Appl.* bursa between lower part of patella and the skin.

prepenna (prēpēn'ā) *n.* [L. *prae*, before; *penna*, feather.] A nestling down feather which is succeeded by adult contour feather; protoptile and mesoptile.

prepharynx (prēfār'ingks) *n.* [L. *prae*, before; Gk. *pharyngx*, gullet.] Narrow thin-walled structure connecting oral sucker and pharynx, in trematodes.

prephragma (prēfrāg'mā) *n.* [L. *prae*, before; Gk. *phragma*, fence.] A phragma developed in relation with the notum of insects.

prepituitary (prē'pitū'itārī) *n.* [L. *prae*, before; *pituita*, phlegm.] Anterior lobe of the pituitary gland; prehypophysis.

preplacental (prē'plāsēn'tāl) *a.* [L. *prae*, before; *placenta*, flat cake.] Occurring before placenta formation or development.

preplumula (prēplūm'ulā) *n.* [L. *prae*, before; *plumula*, small feather.] A nestling down feather which is succeeded by adult down feather.

prepollex (prēpōl'ēks) *n.* [L. *prae*, before; *pollex*, thumb.] A rudimentary additional digit occurring sometimes preaxially to thumb of certain amphibians and mammals.

prepotency (prēpō'tēnsī) *n.* [L. *prae*, before; *potens*, powerful.] The fertilisation of a flower by pollen from another flower in preference to pollen from its own stamens, when both are offered simultaneously; capacity of one parent to transmit more characteristics to offspring than the other parent.

prepotent (prēpō'tēnt) *a.* [L. *prae*, before; *potens*, powerful.] Transmitting the majority of characteristics; *appl.* a flower exhibiting a preference for cross-pollination.

prepuberal (prēpū'bērāl) *a.* [L. *prae*, before; *pubes*, mature.] Anterior to pubis; prepubertal, *q.v.*

prepubertal (prēpū'bērtāl) *a.* [L. *prae*, before; *pubertas*, adult state.] *Pert.* age or state before puberty.

prepubic (prēpū'bīk) *a.* [L. *prae*, before; *pubes*, mature.] *Pert.* prepubis; *appl.* processes of pelvic arch, in certain fishes.

prepubis (prēpū'bis) *n.* [L. *prae*, before; *pubes*, mature.] Part of pelvic girdle of certain reptiles, anterior to os pubis.

prepuce,—*praeputium*, *q.v.*

prepupa (prēpū'pā) *n.* [L. *prae*, before; *pupa*, puppet.] A quiescent stage preceding the pupal in some insects.

preputial,—*praeputial*, *q.v.*

prepyloric (prē'pilōr'ik) *a.* [L. *prae*, before; *pyloros*, gate-keeper.] *Appl.* ossicle hinged to pyloric ossicle in gastric mill of Crustacea.

prepyramidal (prē'pirām'idāl) *a.* [L. *prae*, before; *pyramis*, pyramid.] In front of pyramid; *appl.* a cerebellar fissure; *appl.* tract, the rubrospinal fasciculus.

prescutum (prēskū'tum) *n.* [L. *prae*, before; *scutum*, shield.] Anterior sclerite of insect notum.

presegmental (prē'sēgmēn'tāl) *a.* [L. *prae*, before; *segmentum*, piece.] Anterior to body segments or somites, *opp.* postsegmental.

presentation-time,—minimum duration of continuous stimulation necessary for production of a response.

prespermatid (prēspēr'mätid) *n.* [L. *prae*, before; Gk. *sperma*, seed.] Secondary spermatocyte.

presphenoid (prēs'fē'noid) *n.* [L. *prae*, before; Gk. *sphen*, wedge.] In many vertebrates, a cranial bone anterior to the basisphenoid.

- pressor** (prēs'ôr) *a.* [L. *pressare*, to press.] Causing a rise of arterial pressure; *appl.* stimuli, nervefibres.
- pressure** (prêsh'ûr) *n.* [L. *pressare*, to press.] Tension in plant tissue caused by turgidity of cells.
- presternal** (prêstēr'nāl) *a.* [L. *prae*, before; *sternum*, breast-bone.] Situated in front of sternum or breast-bone; *pert.* anterior part of sternum.
- presternum** (prêstēr'nûm) *n.* [L. *prae*, before; *sternum*, breast-bone.] The manubrium or anterior part of sternum; anterior sclerite of insect sternum.
- presynaptic** (prê'sināp'tik) *a.* [L. *prae*, before; Gk. *synapsis*, union.] *Appl.* vesicles liberating acetylcholine in terminal arborisation of an axon.
- pretarsus** (prêtār'sûs) *n.* [L. *prae*, before; Gk. *tarsos*, sole of foot.] Terminal part of leg, or claws, of insects and spiders.
- pretrematic** (prê'trêmāt'ik) *a.* [L. *prae*, before; Gk. *trema*, hole.] Pre-branchial; prespiracular; *appl.* nerves running in anterior wall of first gill cleft to pharynx.
- pretrochantin** (prêtrôkân'tin) *n.* [L. *prae*, before; Gk. *trochanter*, runner.] Subcoxa.
- prevernal** (prê'vêrnāl) *a.* [L. *prae*, before; *vernus*, spring.] *Pert.*, or appearing in, early spring.
- prevertebral** (prêvêr'tēbrāl) *a.* [L. *prae*, before; *vertebra*, vertebra.] *Pert.* or situated in region in front of vertebral column; *appl.* portion of base of skull; *appl.* ganglia of sympathetic system.
- previtamin** (prê'vitāmin) *n.* [L. *prae*, before; *vita*, life; *Ammon.*] Precursor of a vitamin; provitamin.
- prevomer** (prêvô'mēr) *n.* [L. *prae*, before; *vomer*, ploughshare.] A bone anterior to pterygoid in some vertebrates; vomer of non-mammalian vertebrates; in Monotremata, a membrane bone in floor of nasal cavities, the dumb-bell or paradoxical bone.
- prezygapophysis** (prêzig'ăpôf'isîs) *n.* [L. *prae*, before; Gk. *zygon*, yoke.] *apo*, from; *physis*, growth.] A process on anterior face of neural arch, for articulation with vertebra in front.
- prickle** (prîkl) *n.* [A.S. *pricu*, point.] A pointed process arising through epidermal tissue, as of bramble; a modified trichome.
- prickle-cells**,—cells of deeper layers of stratified squamous epithelium, have short, fine, marginal connecting fibrils, prickle-like when broken.
- primary** (prî'mârî) *a.* [L. *primus*, first.] First; principal; original; *appl.* axis, feathers, meristem, root, wood, etc.; Palaeozoic.
- primary centre**,—part of central nervous system directly linked by nerve fibres with a peripheral organ.
- primary meristem**,—ground meristem, procambium, and protoderm; *cf.* promeristem.
- primary root**,—radicle.
- primaxil** (primăk'sil) *n.* [L. *primus*, first; *axilla*, armpit.] The first axillary arm of a crinoid.
- primibrachs** (prî'mîbrăks) *n. plu.* [L. *primus*, first; *brachia*, arms.] In crinoids, all brachials up to and including the first axillary.
- primine** (prî'mîn) *n.* [L. *primus*, first.] The external integument of an ovule; occasionally *appl.* first-formed or internal coat.
- primate** (prîm'it) *n.* [L. *primus*, first.] The first of any pair of individuals of a catenoid colony in pseudo-conjugation of Gregarinida, in which protomerite of one (the satellite) becomes attached to deutomerite of another (the primate).
- primitive** (prim'tiv) *a.* [L. *primitivus*, original.] Of earliest origin; *appl.* groove, knot, streak, etc.; *appl.* sheath, *i.e.* neurolemma.
- primitive node**,—area of proliferating cells in which the primitive streak begins, thickened anterior wall of primitive pit; Hensen's node.
- primitive pit**,—enclosure at anterior end of the confluent primitive folds.

primitive plate,—floor of the primitive groove.

primitive streak,—two primary embryonic folds, between which lies the primitive groove.

primordial (primôr'diäl) *a.* [L. *primordium*, beginning.] Primitive; original; first commenced; first formed; *appl.* ova, cell, utricle, veil, etc.

primordium (primôr'diüm) *n.* [L. *primordium*, beginning.] Original form; a structure when first indicating assumption of form; anlage.

priodont (pri'ödönt) *a.* [Gk. *prion*, saw; *odous*, tooth.] Saw-toothed; *appl.* stag-beetles with smallest development of mandible projections.

prisere (pri'sēr) *n.* [L. *primus*, first; *serere*, to put in a row.] Plant succession on area previously without vegetation; primary sere.

prismatic (prizmät'ik) *a.* [L. *prisma*, prism.] Like a prism; *appl.* cells, leaves; consisting of prisms, as prismatic layer of shells.

pro-acrosome (pröäk'rösöm) *n.* [Gk. *pro*, before; *akros*, tip; *soma*, body.] Structure in spermatid, which develops into acrosome.

proamnion (pröäm'niön) *n.* [Gk. *pro*, before; *amnion*, foetal membrane.] An area of blastoderm in front of head of early embryos of higher vertebrates.

proandry (pröän'dri) *n.* [Gk. *pro*, before; *aner*, male.] Meroandry with retention of anterior pair of testes only. *Opp.* metandry.

proangiosperm (pröän'jiöspärm) *n.* [Gk. *pro*, before; *angeion*, vessel; *sperma*, seed.] A fossil type of angiosperm.

proatlas (pröät'läs) *n.* [Gk. *pro*, before; *Atlas*.] A median bone intercalated between atlas and skull in certain reptiles.

probasidium (prö'bäsíd'iüm) *n.* [Gk. *pro*, before; *basis*, base; *idion*, dim.] A thick-walled resting spore, as of Uredinales, Ustilaginales, Auriculariales; the cell which gives rise to a heterobasidium; an immature basidium, before

forming sterigmata or basidiospores.

proboscidiform (pröbös'-síd'iförm) *a.* [Gk. *proboskis*, trunk; L. *forma*, shape.] Proboscis-like; *appl.* infusorians with tentacles on a proboscis-like process.

proboscis (pröbös'sis) *n.* [Gk. *proboskis*, trunk.] A trunk-like process of head, as of insects, annelids, nemerteans, elephants.

probud,—a larval bud from the stolon in Doliolidae, which moves by pseudopodia to the cadophore and there divides to produce definitive buds.

procambial strand,—a longitudinal strand of elongated cells near periphery of plerome of a vascular bundle; desmogen strand.

procambium (prökäm'büüm) *n.* [L. *pro*, before; L.L. *cambium*, nutrient.] The tissue from which vascular bundles are developed.

procarp (prö'kârp) *n.* [Gk. *pro*, before; *karpos*, fruit.] The female organ of red seaweeds, a one or more celled structure, consisting of the carpogonium, trichogyne, and auxiliary cells.

procartilage (prökâr'tilēj) *n.* [L. *pro*, before; *cartilago*, gristle.] The early stage of cartilage.

procercoid (prösēr'koid) *n.* [Gk. *pro*, before; *kerkos*, tail; *eidōs*, form.] Early larval form of certain cestodes in first intermediate host.

procerebrum (prösēr'ëbrüm) *n.* [L. *pro*, before; *cerebrum*, brain.] The fore-brain, developed in preantennary region of insects.

procerus (prö'sërüs) *n.* [Gk. *pro*, before; *keras*, horn.] Pyramidal muscle of the nose.

prochorion (prökö'rion) *n.* [Gk. *pro*, before; *chorion*, skin.] An enveloping structure of blastodermic vesicle preceding formation of chorion.

prochromatin (prökrö'mätin) *n.* [Gk. *pro*, before; *chroma*, colour.] Plasmosome substance; paranuclein, pyrenin, pseudochromatin.

prochromosome (prökrō'mösōm) *n.* [Gk. *pro*, before; *chroma*, colour; *soma*, body.] A discrete mass of basichromatin, primordium of the future chromosome.

proclimax (prō'klīmāks) *n.* [Gk. *pro*, before; *klīmax*, ladder.] Stage in a sere appearing instead of usual climatic climax; *cf.* preclimax.

procoelous (prōsē'lūs) *a.* [Gk. *pro*, before; *kōilos*, hollow.] With concave anterior face, as vertebral centra.

procoracoid (prōkōr'ākoid) *n.* [Gk. *pro*, before; *korax*, crow; *eidos*, form.] An anteriorly directed process from glenoid fossa of urodeles.

procruscula (prōkrūs'kulā) *n. plu.* [L. *pro*, for; *dim.* of *crus*, leg.] A pair of blunt locomotory outgrowths on posterior half of a redia.

procrypsis (prōkrip'sis) *n.* [Gk. *pro*, for; *krypsis*, concealment.] Shape, pattern, colour, or behaviour tending to make animals less conspicuous in their normal environment; camouflage.

procryptic (prōkrip'tik) *a.* [Gk. *pro*, for; *kryptos*, hidden.] With coloration or pattern adapted for concealment.

proctal (prōk'tāl) *a.* [Gk. *proktos*, anus.] Anal; *appl.* fish fins.

proctiger (prōk'tijēr) *n.* [Gk. *proktos*, anus; L. *gerere*, to bear.] Anal portion of terminalia in Diptera; anal lobe.

proctodaeum (prōk'tōdē'ūm) *n.* [Gk. *proktos*, anus; *hodos*, way.] The latter part of embryonic alimentary canal, formed by anal invagination; a similar ectoderm-lined part in certain invertebrates.

procumbent (prōkūm'bēnt) *a.* [L. *pro*, forward; *cumbens*, lying down.] Prostrate; trailing on the ground; *appl.* stems.

prodeltidium (prōdēltid'ium) *n.* [Gk. *pro*, before; Δ, delta; *idion*, *dim.*] A plate which develops into a pseudodeltidium.

prodentine (prōdēn'tin) *n.* [L. *pro*,

before; *dens*, tooth.] A layer of uncalcified matrix capping tooth cusps before formation of dentine.

proembryo (prō'ēm'brīō) *n.* [Gk. *pro*, before; *embryon*, foetus.] An embryonic structure preceding true embryo; first results of spore segmentation.

proenzyme (prōēn'zīm) *n.* [Gk. *pro*, before; *en*, in; *zyme*, leaven.] Zymogen.

proepimeron (prō'ēpimē'rōn) *n.* [Gk. *pro*, before; *epi*, upon; *meros*, upper thigh.] A sclerite posterior to propleura; posterior pronotal lobe of Diptera.

proerythrocyte (prō'ērith'rōsīt) *n.* [Gk. *pro*, before; *erythros*, red; *kytos*, hollow.] An immature red blood corpuscle; pronormocyte, reticulocyte.

proeusternum (prō'ūstēr'nūm) *n.* [Gk. *pro*, before; *eu*, well; *sternon*, breastplate.] Sclerite between propleura, forming ventral part of prothorax in Diptera.

profunda (prōfūn'dā) *a.* [L. *profundus*, deep.] Deep-seated, *appl.* a branch of brachial, femoral, or costocervical artery, to the ranine artery, terminal part of lingual artery, and to a vein of femur. *n.* A deep artery or vein.

profundal,—*appl.* or *pert.* zone of deep water and bottom below compensation depth in lakes.

progamete (prō'gāmēt) *n.* [Gk. *pro*, before; *gamos*, marriage.] A structure giving rise to gametes by abstriction, in certain fungi.

progamic (prōgām'ik) *a.* [Gk. *pro*, before; *gamos*, marriage.] *Appl.* brood-division for gamete production.

progastrin (prōgās'trīn) *n.* [Gk. *pro*, before; *gaster*, stomach.] Precursor of gastric secretion in mucous membrane of stomach.

progenesis (prōjēn'ēsis) *n.* [Gk. *pro*, before; *genesis*, origin.] The maturation of gametes before completion of body growth; *cf.* neoteny.

progeotropism (prō'jēōt'rōpizm) *n.* [Gk. *pro*, for; *ge*, earth; *trope*, turn.] Positive geotropism.

progestational (prōjēstā'shōnāl) *a.* [L. *pro*, before; *gestare*, to bear.] *Appl.* phase of oestrous cycle during luteal and endometrial activity; *appl.* hormones controlling uterine cycle and preparing uterus for nidation.

progesterone (prōjēs'tērōn) *n.* [L. *pro*, before; *gestare*, to bear.] A crystalline steroid, $C_{21}H_{30}O_2$, pure progestational corpus luteum hormone or corporin, lutin, progestin, progesterone.

progesterin (prōjēs'tīn) *n.* [L. *pro*, for; *gestare*, to bear.] Progestational hormone of corpus luteum containing progesterone; a brand of progesterone.

proglottides (prōglōt'idēz) *n. plu.* [Gk. *pro*, for; *glotta*, tongue.] The propagative body-segments of a tape-worm, formed by strobilisation from neck. *Sing.* proglottis.

prognathous (prōg'nāthūs) *a.* [Gk. *pro*, forth; *gnathos*, jaw.] Having prominent or projecting jaws; with mouth-parts anterior, *opp.* hypognathous, *appl.* insects; with projecting anthers; prognathic.

progonal (prōgō'nāl) *a.* [Gk. *pro*, before; *gonos*, begetting.] *Appl.* sterile anterior portion of genital ridge.

progoneate (prōgōn'ēāt) *a.* [Gk. *pro*, before; *gone*, generation.] Having the genital aperture anteriorly, as on third segment behind head of Diplopoda. *Opp.* opisthogoneate.

prohaemocyte (prōhē'mōsīt) *n.* [Gk. *pro*, before; *haima*, blood; *kytos*, hollow.] A cell that develops into a haemocyte; a proleucocyte, *q.v.*

prohydrotropism (prō'hidrōt'rōpizm) *n.* [Gk. *pro*, for; *hydor*, water; *trope*, turn.] Positive hydrotropism.

proispority (prōiōs'pōri) *n.* [Gk. *proios*, early; *sporos*, seed.] Premature development of spores; prospory.

projectile (prōjēk'tīl) *a.* [L. *pro*, forth; *jacere*, to throw.] Protrusible; that can be thrust forward.

projection (prōjēk'shūn) *n.* [L. *pro*, forth; *jacere*, to throw.] The referring of stimulations to end-organs of sense by means of connecting projection nerve-fibres; the throwing forth by a plant of pollen, spores, or seeds.

projicient (prōjish'ēnt) *a.* [L. *projiciens*, projecting.] *Appl.* sense organs reacting to distant stimuli, as light, sound.

prokaryocyte (prōkār'iōsīt) *n.* [Gk. *pro*, before; *karyon*, nucleus; *kytos*, hollow.] A prorubricyte.

prolabium (prōlā'biūm) *n.* [L. *pro*, in front of; *labium*, lip.] Middle part of upper lip; *cf.* philtrum.

prolactin (prōlāk'tīn) *n.* [L. *pro*, for; *lac*, milk.] The lactogenic prepituitary hormone; luteotrophic hormone.

prolamines,—a class of proteins present in seeds of cereals.

prolan,—gonadotropic hormones occurring in various tissues and body-fluids during pregnancy in some mammals; prolan A stimulating ovarian follicles and male germ cells, prolan B being the luteinising hormone.

proleg (prō'lēg) *n.* [L. *pro*, for; M.E. *leg*, leg.] An unjointed abdominal appendage of arthropod larvae; propes.

proleucocyte (prōlū'kōsīt, -loo-) *n.* [Gk. *pro*, before; *leukos*, white; *kytos*, hollow.] A small leucocyte with basophil cytoplasm and large nuclei, and developing into macro-nucleocyte, in insects; leucoblast.

proliferate (prōlif'ērāt) *v.* [L. *proles*, offspring; *ferre*, to bear.] To reproduce repeatedly; to resume growth, of reproductive shoots.

proliferation (prōlif'ērā'shūn) *n.* [L. *proles*, offspring; *ferre*, to bear.] Prolifcation; increase by frequent and repeated reproduction.

proliferous (prōlif'ērūs) *a.* [L. *proles*, offspring; *ferre*, to bear.] Multiplying quickly; *appl.* bud-bearing

leaves; developing supernumerary parts abnormally.

proline,—an amino acid convertible into ornithine, also a metabolic product of ornithine; $C_5H_9NO_2$.

proloculus (prölök'ülüs) *n.* [L. *pro*, before; *loculus*, compartment.] First chamber, microspheric when formed by conjugation of swarm spores, megalospheric when formed asexually by fission, in polythalamous foraminifera.

promegaloblast (prömëg'älöbläst) *n.* [Gk. *pro*, before; *megalos*, large; *blastos*, bud.] A cell which develops into a megaloblast; rubriblast.

promeristem (prömër'istëm) *n.* [Gk. *pro*, before; *meristes*, divider.] Meristem of growing point, and primary meristems.

prometaphase (prö'mët'áfāz) *n.* [Gk. *pro*, before; *meta*, after; *phasis*, appearance.] Stage between prophase and metaphase in mitosis and meiosis.

promitosis (prö'mitō'sis) *n.* [Gk. *pro*, before; *mitos*, thread.] A simple type of mitosis, exemplified in nuclei of protokaryon type; protomitosis, *q.v.*

promonocyte (prömön'ösit) *n.* [Gk. *pro*, before; *monos*, single; *kytos*, hollow.] A cell developed from a monoblast and developing into a monocyte.

promontory (pröm'öntörī) *n.* [L. *pro*, forth; *mons*, mountain.] Prominence or projection, as of cochlea and sacrum.

promorphology (prö'môrföl'öjī) *n.* [Gk. *pro*, before; *morphe*, form; *logos*, discourse.] Morphology from the geometrical standpoint.

promotor (prömō'tör) *n.* [L. *promovere*, to move forwards.] A protractor muscle, *opp.* remotor.

promuscis (prömüs'sis) *n.* [L. *promuscis*, proboscis.] The proboscis of Hemiptera.

promycelium (prö'misë'lliüm) *n.* [Gk. *pro*, before; *mykes*, mushroom.] Mycelium developing from a zygosporium, itself giving rise to a sporangium or to sporidia; a protobasidium.

promyelocyte (prömi'ëlösit) *n.* [Gk. *pro*, before; *myelos*, marrow; *kytos*, hollow.] Amoeboid marrow cell which develops into a myelocyte or granulocyte.

prone (prö'nät) *a.* [L. *pronare*, to bend forward.] Prone; inclined.

pronation (prönä'shün) *n.* [L. *pronare*, to bend forward.] Act by which palm of hand is turned downwards by means of pronator muscles; *cf.* supination.

pronephric (prönëf'rik) *n.* [Gk. *pro*, before; *nephros*, kidney.] *Pert.* or in region of pronephros; *appl.* duct, tubules.

pronephros (prönëf'rös) *n.* [Gk. *pro*, before; *nephros*, kidney.] The fore kidney of embryonic or larval life.

pronormocyte (prönör'mösit) *n.* [Gk. *pro*, before; L. *norma*, rule; Gk. *kytos*, hollow.] An immature red blood corpuscle; proerythrocyte, reticulocyte.

pronotum (prönō'tüm) *n.* [Gk. *pro*, before; *noton*, back.] The dorsal part of prothorax of insects.

pronucleus (prönü'klëüs) *n.* [L. *pro*, before; *nucleus*, kernel.] Egg or sperm nucleus after maturation.

pronymph (prö'nimf) *n.* [L. *pro*, before; *nympha*, maiden.] The stage in metamorphosis of Diptera preceding nymph stage.

pro-oestrus (prö'ëstrüs) *n.* [Gk. *pro*, before; *oistros*, gadfly.] Period of preparation for pregnancy; phase before oestrus or heat; pro-oestrum.

pro-ostracum (pröös'träküm) *n.* [Gk. *pro*, before; *ostrakon*, shell.] The horny pen of a decapod dibranchiate shell or belemnite; anterior phragmocone.

prootic (prö'ötik) *n.* [Gk. *pro*, before; *ous*, ear.] The anterior bone of otic capsule in vertebrates. *a. Pert.* a centre of ossification of petromastoid part of temporal bone.

propagative (pröp'ägätiv) *a.* [L. *propagare*, to propagate.] Reproductive; *appl.* a cell, a phase, an individual of a colony.

propagulum (pröpäg'ülüm) *n.* [L. *propagare*, to propagate.] A bud or shoot capable of developing into an adult; propagule.

propatagium,—prepatagium, *g.v.*

properithecium (prō'pēthē'siüm) *n.* [Gk. *pro*, before; *peri*, around; *theke*, case.] A young perithecium which contains a single zygote giving rise ultimately to ascospores.

propes (pröpēs) *n.* [L. *pro*, before; *pes*, foot.] Proleg, *g.v.*

prophase (prō'fāz) *n.* [Gk. *pro*, before; *phasis*, appearance.] The preparatory changes, the first stage in mitosis, or in meiosis.

prophialide (prōfi'älid) *n.* [Gk. *pro*, before; *phiale*, bowl; *eidos*, form.] A hyphal structure or sporocladium giving rise to phialides.

prophloem,—protophloem, *g.v.*

prophototropism (prō'fōtōt'rōpīzm) *n.* [Gk. *pro*, for; *phos*, light; *trope*, turn.] Positive phototropism.

prophyllum (prōfil'üm) *n.* [Gk. *pro*, before; *phyllon*, leaf.] A small bract or bracteole; first foliage leaf, at base of branch; prophyll.

proplastid (prōplās'tid) *n.* [Gk. *pro*, before; *plastos*, formed; *idion*, dim.] An immature plastid, as in meristematic cells.

propleuron (prōploor'ōn) *n.* [Gk. *pro*, before; *pleura*, side.] A lateral plate of prothorax of insects.

propneustic (prōnū'stik, -pnū-) *a.* [Gk. *pro*, before; *pnēin*, to breathe.] With only prothoracic spiracles open for respiration.

propodeon (prōpō'dēōn) *n.* [Gk. *pro*, before; *pous*, foot.] An abdominal segment in front of petiole or pondeon, of Hymenoptera; otherwise the median segment, Latreille's segment, epinotum, propodeum.

propodite (prō'pōdit) *n.* [Gk. *pro*, before; *pous*, foot.] Foot segment sixth from body, in Malacostraca; tibia in spiders.

propodium (prōpō'diüm) *n.* [Gk. *pro*, before; *pous*, foot.] The small anterior part of a molluscan foot.

propodosoma (prō'pōdōsō'mā) *n.* [Gk. *pro*, before; *pous*, foot; *soma*, body.] Body region bearing first and second legs in Acarina.

propolis (prō'pōlis) *n.* [Gk. *pro*, for; *polis*, city.] Resinous substance from buds or leaf axils of certain trees, utilised by worker bees to fasten comb portions and fill up crevices; bee-glue.

propops (prō'pōnz) *n.* [L. *pro*, before; *pons*, bridge.] Alae pontis, delicate bands of white matter crossing anterior end of pyramid below pons Varolii; ponticulus.

proprioception (prō'priōsēp'shūn) *n.* [L. *proprius*, one's own; *capere*, to take.] The reception of stimuli originating within the organism.

proprioceptor (prō'priōsēp'tōr) *n.* [L. *proprius*, one's own; *capere*, to take.] A receptor in muscle, tendon, vestibule of internal ear, etc.

propriogenic (prō'prīōjēn'ik) *a.* [L. *proprius*, one's own; *genus*, kind.] *Appl.* effectors other than muscle, or organs which are both receptors and effectors; *cf.* myogenic.

propriospinal (prō'priōspi'nāl) *a.* [L. *proprius*, one's own; *spina*, spine.] *Peri.* wholly to the spinal cord; *appl.* fibres, etc.

prop-roots,—adventitious aerial roots growing downwards from stem, as in mangrove and maize.

propterygium (prō'tērij'iüm, prō-ptērij'iüm) *n.* [Gk. *pro*, before; *pterygion*, little wing.] The foremost of three basal cartilages supporting pectoral fin of elasmobranchs.

propulsive pseudopodium,—in some Neosporidia, a pseudopodium developed posteriorly which by its elongation pushes the body forward.

propupa (prōpū'pā) *n.* [L. *pro*, before; *pupa*, puppet.] Stage in insect metamorphosis preceding pupa stage; prepupa.

propygidium (prō'pijid'iüm) *n.* [Gk. *pro*, before; *pygidion*, small rump.] The dorsal plate anterior to pygidium in Coleoptera.

prorachis (prōrā'kis) *n.* [Gk. *pro*, before; *rhachis*, spine.] The face of Pennatulacea which is sterile and coincides with asulcar aspect of terminal zooid.

proral (prō'rāl) *a.* [Gk. *prora*, prow.] From front backwards; *appl.* jaw movement, as in rodents. *Opp.* palinal.

prorsad (prōr'sād) *adv.* [L. *prorsus*, forwards; *ad*, to.] Anteriorly; forward.

prorsal (prōr'sāl) *a.* [L. *prorsus*, forwards.] Anterior.

prorubricyte (prōroob'risit) *n.* [L. *pro*, before; *ruber*, red; Gk. *kytos*, hollow vessel.] A basophil erythroblast.

proscapula (prōskāp'ulā) *n.* [L. *pro*, before; *scapula*, shoulder - blade.] The clavicle.

prosclex (prōskō'lēks) *n.* [Gk. *pro*, before; *skolēx*, worm.] A rounded cyst with fluid-filled cavity, a stage in development of tape-worm.

prosecretin (prō'sēkrēt'in) *n.* [L. *pro*, before; *secretus*, separated.] The precursor of secretin; pro-secretine.

prosencephalisation (prōs'ēnkēf'ālī-zā'shūn,-sēf-) *n.* [Gk. *pros*, before; *engkephalos*, brain.] The progressive shifting of controlling centres towards the fore-brain and the increasing complexity of cerebral cortex in the course of evolution.

prosencephalon (prōs'ēnkēf'ālōn,-sēf-) *n.* [Gk. *pros*, before; *engkephalos*, brain.] The fore-brain, comprising telencephalon and dien-cephalon; the first primary brain-vesicle.

prosenchyma (prōsēng'kīmā) *n.* [Gk. *pros*, near; *engchyma*, infusion.] Tissue of prosenchymatous cells.

prosenchymatous (prōs'ēngkīm'ātūs) *a.* [Gk. *pros*, near; *engchyma*, infusion.] *Appl.* elongated pointed cells, with thin or thick cell-walls, as in mechanical and vascular tissues of plants. *Opp.* parenchymatous.

prosethmoid (prōsēth'moid) *n.* [Gk. *pros*, near; *ethmos*, sieve; *eidos*, form.] An anterior cranial bone of teleosts.

proscula (prōsik'ulā) *n.* [L. *pro*, before; *sicula*, small dagger.] Distal part of sicula, bearing the nema in graptolites.

prosiphon (prōsi'fōn) *n.* [Gk. *pro*, for; *siphon*, tube.] A spout-like prolongation of edges of mantle-flaps of certain molluscs; endo-siphuncle.

prosocoel (prōs'ōsēl) *n.* [Gk. *proso*, forward; *koilos*, hollow.] A narrow cavity in epistome of Molluscoidea, the first main part of coelom; median cavity between third and lateral ventricles of brain; inter-ventricular foramen.

prosodetic (prōs'ōdēt'ik) *a.* [Gk. *prosodos*, advance.] Anterior to beak; *appl.* certain bivalve ligaments.

prosodus (prōs'ōdūs) *n.* [Gk. *prosodos*, advance.] A delicate canalicule between chamber and incurrent canal in some sponges.

prosoma (prōsō'mā) *n.* [Gk. *pro*, before; *soma*, body.] The anterior part of body; a cephalothorax.

prosopyle (prōs'ōpil) *n.* [Gk. *proso*, forward; *pyle*, gate.] The aperture of communication between adjacent incurrent and flagellate canals in some sponges.

prosorus (prō'sōrūs) *n.* [Gk. *pro*, before; *soros*, heap.] The cell from which a sorus or group of sporangia is derived.

prospory (prō'spōri) *n.* [Gk. *pro*, before; *sporos*, seed.] Precocious development of sporangia; seed production in plants that are not fully developed.

prostalia (prōstā'liā) *n. plu.* [L. *pro*, forth; *stare*, to stand.] Projecting spicules of Hexactinellida.

prostate (prōs'tāt) *a.* [L. *pro*, before; *stare*, to stand.] *Appl.* a muscular and glandular organ around commencement of male urethra in pelvic cavity. *n.* The prostate gland; the spermiducal annelids. anald in

prostatic (pröstät'ik) *a.* [L. *pro*, before; *stare*, to stand.] *Pert.* prostate gland; *appl.* duct, nerve, sinus, utricle, hormone, etc.

prostemmate (pröstēm'āt) *a.* [Gk. *pro*, before; *stemma*, wreath.] *Appl.* an ante-ocular structure or organ of some Collembola, of doubtful function; prostemmatic.

prosternum (pröstēr'nūm) *n.* [L. *pro*, before; *sternum*, breast-bone.] Ventral part of prothorax of insects; presternum, *q.v.*; ventral part of cheliceral segment in Arachnoidea.

prostheca (prösthē'kā) *n.* [Gk. *prosthēke*, appendage.] Movable inner lobe of mandibles in certain beetle larvae.

prosthetic (prösthēt'ik) *a.* [Gk. *prosthetos*, added.] *Appl.* non-protein constituent of a conjugated or compound protein.

prosthion (prös'thiōn) *n.* [Gk. *prosthion*, foremost.] The alveolar point, middle point of the upper alveolar arch.

prosthomere (prös'thōmēr) *n.* [Gk. *prosthen*, forward; *meros*, part.] Most anterior or preoral somite.

prostomiate (pröstōm'iāt) *a.* [Gk. *pro*, before; *stoma*, mouth.] Having a portion of head in front of mouth.

prostomium (pröstō'miūm) *n.* [Gk. *pro*, before; *stoma*, mouth.] In worms and molluscs, part of head anterior to mouth.

prostrate (prös'trāt) *a.* [L. *prostratus*, thrown down.] Procumbent; trailing on the ground.

protamines,—simple basic proteins occurring in fish testes.

protandris (prötän'drīzm) *n.* [Gk. *protos*, first; *aner*, male.] Protandry, sometimes exclusively in zoological application.

protandrous (prötän'drūs) *a.* [Gk. *protos*, first; *aner*, male.] Exhibiting protandry; proterandrous.

protandry (prötän'drī) *n.* [Gk. *protos*, first; *aner*, male.] Condition of hermaphrodite plants and animals where male elements mature and

are shed before female elements mature; proterandry.

protaspis (prötäs'pīs) *n.* [Gk. *protos*, first; *aspis*, shield.] Developmental stage of trilobites.

protaxis (pröt'äksīs) *n.* [Gk. *protos*, first; L. *axis*, axle.] Primordial filament or axis in evolution of plant stem.

protaxon (pröt'äksōn) *n.* [Gk. *protos*, first; *axon*, axle.] Axon-base.

protease (prō'tēās) *n.* [Gk. *proteion*, first.] Any proteolytic enzyme.

protegulum (prötēg'ulūm) *n.* [L. *pro*, before; *tegulum*, covering.] The semicircular or semielliptical embryonic shell of brachiopods.

proteid (prō'teid) *n.* [Gk. *proteion*, first; *eidōs*, form.] The nitrogenous material of plant cells; albuminous substance; a term subject to varying restrictions by different authors; protein, *q.v.*

protein (prō'tēin) *n.* [Gk. *proteion*, first.] Albuminous substance; a nitrogenous compound of cell protoplasm; a complex substance characteristic of living matter and consisting of aggregates of amino-acids, and generally containing sulphur.

proteism (prō'tēizm) *n.* [L. *Proteus*, a sea-god.] The capacity to change shape, as of amoeba and some other Protista.

protembryo (pröt'ēmbriō) *n.* [Gk. *protos*, first; *embryon*, embryo.] The fertilised ovum and its cleavage stages preceding formation of blastula.

protenchyma (prötēng'kīma) *n.* [Gk. *protos*, first; *engchyma*, infusion.] Zone of primordial tissue of a carophore below origin of the universal veil.

protentomon (pröt'ēntōmōn) *n.* [Gk. *protos*, first; *entomon*, insect.] The hypothetical archetype of insects.

proteoclastic (prō'tēōklās'tik) *a.* [Gk. *proteion*, first; *klaō*, to break.] *Appl.* enzymes or ferments which break down proteins; proteolytic.

proteolysis (prō'tēōl'īsis) *n.* [Gk. *proteion*, first; *lysis*, loosing.] The disintegration of proteins, as by proteolytic enzymes.

proteolytic (prō'tēōlīt'ik) *a.* [Gk. *proteion*, first; *lysis*, loosing.] *Appl.* enzymes which change proteins into proteoses, peptones, polypeptides, and eventually into amino acids.

proteose (prō'tēōs) *n.* [Gk. *proteion*, first.] The first cleavage product of action of hydrolysis on a protein molecule.

proterandrous (prōt'ērān'drūs) *a.* [Gk. *proteros*, earlier; *aner*, male.] Protandrous, *q.v.*; proterandric.

proteranthous (prōt'ērān'thūs) *a.* [Gk. *proteros*, earlier; *anthos*, flower.] Flowering before foliage leaves appear.

proterogenesis (prōt'ērōjēn'ēsīs) *n.* [Gk. *proteros*, forward; *genesis*, descent.] Foreshadowing of adult or later forms by youthful or earlier forms. *Opp.* palingenesis.

proteroglyph (prōt'ērōglīf) *a.* [Gk. *proteros*, in front; *glyphein*, to carve.] With specialised fang teeth in anterior upper jaw region.

proterogynous (prōt'ērōj'inūs) *a.* [Gk. *proteros*, earlier; *gyne*, woman.] Protogynous.

proterosoma (prōt'ērōsō'mā) *n.* [Gk. *proteros*, forward; *soma*, body.] Body region comprising gnathosoma and propodosoma, in Acarina.

proterotype (prōt'ērōtīp) *n.* [Gk. *proteros*, earlier; *typos*, pattern.] Original or primary type, as holotype, paratypes, syntypes.

Proterozoic (prōt'ērōzō'īk) *a.* [Gk. *proteros*, earlier; *zoon*, animal.] *Pert.* or *appl.* the older Palaeozoic faunal epoch, the age of primitive invertebrates.

prothallial (prōthāl'īāl) *a.* [Gk. *pro*, before; *thallos*, young shoot.] *Pert.* a prothallus; *appl.* cell in pollen grain of gymnosperms, considered as vestige of a thallus.

prothallium,—prothallus, *q.v.*

prothalloid (prōthāl'oid) *a.* [Gk. *pro*, before; *thallos*, young shoot; *eidos*, form.] Like a prothallus.

prothallus (prōthāl'ūs) *n.* [Gk. *pro*, before; *thallos*, young shoot.] The hyphae of lichens during the initial growth stages; a small, thin structure, the gametophyte or haploid sexual generation of pteridophytes, developed from spores; prothallus.

protheca (prōthē'kā) *n.* [Gk. *pro*, before; *theke*, box.] The rudiment of coral formation; basal part of coral calice.

prothecium (prōthē'siūm) *n.* [Gk. *pro*, before; *theke*, box.] A primary perithecium of certain fungi.

prothetely (prōthēt'ēlī) *n.* [Gk. *prothein*, to run before; *telos*, completion.] The development or manifestation of pupal or of imaginal characters in insect larva. *Opp.* hysterotely.

prothoracic (prōthōrās'īk) *a.* [Gk. *pro*, before; *thorax*, chest.] *Pert.* prothorax; *appl.* glands secreting ecdysone or moulting hormone.

prothorax (prōthō'rāks) *n.* [Gk. *pro*, before; *thorax*, chest.] Anterior thoracic segment of Arthropoda.

prothrombin (prōthrōm'bin) *n.* [Gk. *pro*, before; *thrombos*, clot.] Thrombogen, after activation by thromboplastin and calcium, forming thrombin; thrombogen.

prothyalosome (prōt'hī'ālōsōm) *n.* [Gk. *protos*, first; *hyalos*, glass; *soma*, body.] The area surrounding germinal spot in germinal vesicle.

protista (prōtīs'tā) *n. plu.* [Gk. *protistos*, first of all.] The primitive organisms from which animals and plants arose; protobionta; proto-phyta and protozoa.

protistology (prō'tīstōl'ōjī) *n.* [Gk. *protistos*, first of all; *logos*, discourse.] The science dealing with primitive forms of life.

proto-aecidium (prō'tōēsīd'iūm) *n.* [Gk. *protos*, first; *oikidion*, small house.] A cell-mass surrounded by hyphal layers, containing cells eventually producing aecidiospores and disjunctive cells; protoaecium, aecial primordium, primordial aecidium.

protobasidium (prō'tōbāsīd'ium) *n.* [Gk. *protos*, first; *basidion*, small pedestal.] A basidium producing a mycelium of four cells from each of which a sporidium is developed by abstriction; promycelium.

protobiology (prō'tōbiōl'ōji) *n.* [Gk. *protos*, first; *bios*, life; *logos*, discourse.] The study of ultra-microscopic organisms.

protobiont (prō'tōbi'ōnt) *n.* [Gk. *protos*, first; *bion*, living.] A protist; protophyton or protozoon.

protobios,—ultramicroscopic life; ultraviruses.

protoblast (prō'tōblāst) *n.* [Gk. *protos*, first; *blastos*, bud.] A naked cell, devoid of membrane; first or single-cell stage of an embryo; a blastomere which develops into a definite organ or part; internal-bud stage in life-history of Neosporidia.

protoblema (prō'tōblēmā) *n.* [Gk. *protos*, first; *blema*, coverlet.] A layer of flaky tissue covering the teleoblema and constituting the primary or primordial veil of certain fungi; protoblem.

protobroch (prō'tōbrōk) *a.* [Gk. *protos*, first; *brochos*, mesh.] *Appl.* nuclei of gonia in resting stage; *cf.* deutobroch.

protocephalic (prō'tōkēfāl'ik, -sēf-) *a.* [Gk. *protos*, first; *kephale*, head.] *Appl.* or *pert.* primary head region of insect embryo; *pert.* protocephalon.

protocephalon (prō'tōkēf'ālōn, -sēf-) *n.* [Gk. *protos*, first; *kephale*, head.] Head-part of cephalothorax in Malacostraca; first of six segments composing insect head.

protocercal (prō'tōsēr'kāl) *a.* [Gk. *protos*, first; *kerkos*, tail.] Having caudal fin divided into two equal lobes; diphyrcercal, the primitive form of caudal fin.

protocerebrum (prō'tōsēr'ēbrūm) *n.* [Gk. *protos*, first; *L. cerebrum*, brain.] Anterior pair of ganglionic centres of crustaceans; anterior part of insect brain, formed by fused ganglia of optic segment of head; protocerebrum.

protochlorophyll (prō'tōklō'rōfil) *n.* [Gk. *protos*, first; *chloros*, green; *phyllon*, leaf.] A substance which is converted to chlorophyll by agency of light; etioline.

protocnemes (prō'tōknēmz) *n. plu.* [Gk. *protos*, first; *kneme*, wheel-spoke.] The six primary pairs of mesenteries of Zoantharia.

protoconch (prō'tōkōngk) *n.* [Gk. *protos*, first; *kongche*, shell.] The larval shell of molluscs, indicated by cicatrix on adult shell.

protocone (prō'tōkōn) *n.* [Gk. *protos*, first; *konos*, cone.] Inner cusp of upper molar.

protoconid (prō'tōkō'nid) *n.* [Gk. *protos*, first; *konos*, cone; *eidōs*, form.] External cusp of lower molar.

protoconidium (prō'tōkōnid'ium) *n.* [Gk. *protos*, first; *konis*, dust; *idion*, *dim.*] A rounded or club-shaped cell or hemispore at the tip of a filament, giving rise to deuteroconidia, as in dermatophytes.

protoconule (prō'tōkō'nūl) *n.* [Gk. *protos*, first; *konos*, cone.] Anterior intermediate cusp of upper molar.

protocorm (prō'tōkōrm) *n.* [Gk. *protos*, first; *kormos*, trunk.] Swelling of rhizophore, preceding root formation, as in certain club-mosses; undifferentiated cell-mass of archegonium in Gingkoales.

protocormic (prō'tōkōr'mik) *a.* [Gk. *protos*, first; *kormos*, trunk.] *Appl.* or *pert.* primary trunk region of insect embryo.

protocranium (prō'tōkrā'nium) *n.* [Gk. *protos*, first; *kranion*, skull.] Posterior part of insect epicranium.

protoderm (prō'tōdērm) *n.* [Gk. *protos*, first; *derma*, skin.] The outer cell layer of apical meristem; primordial epidermis of plants; superficial dermatogen.

protoepiphyte (prō'tōēp'ifit) *n.* [Gk. *protos*, first; *epi*, upon; *phyton*, plant.] A plant growing upon another and getting all its nourishment from that other.

protofibrils (prō'tōfi'brīlz) *n. plu.* [Gk. *protos*, first; L. *fibrilla*, small fibre.] Minute threads seen in ground substance between sub-microscopic fibrils, in connective tissue.

protogene (prō'tōjēn) *n.* [Gk. *protos*, first; *genos*, descent.] A dominant allelomorph, *opp.* *allogene*.

protogenesis (prō'tōjēn'ēsīs) *n.* [Gk. *protos*, first; *genesis*, origin.] First embryonic stage, including development of archenteron; *cf.* *deuterogenesis*.

protogenic (prō'tōjēn'īk) *a.* [Gk. *protos*, first; *genos*, offspring.] Persistent from beginning of development.

protogynous (prōtōj'inūs) *a.* [Gk. *protos*, first; *gyne*, woman.] Having female elements mature before male; *proterogynous*.

protogyny (prōtōj'īni) *n.* [Gk. *protos*, first; *gyne*, woman.] Condition of hermaphrodite plants and animals in which female elements mature and are spent before maturation of male elements; *proterogyny*.

protohaem (prō'tōhēm) *n.* [Gk. *protos*, first; *haima*, blood.] Haematin.

protokaryon (prō'tōkār'tōn) *n.* [Gk. *protos*, first; *karyon*, nut.] A simple or primitive nucleus consisting of a mass of chromatin suspended in nuclear sap.

protoloph (prō'tōlōf) *n.* [Gk. *protos*, first; *lophos*, crest.] Anterior transverse crest of upper molars.

protomala (prō'tōmālā) *n.* [Gk. *protos*, first; L. *mala*, cheek.] A mandible of myriopods.

protomerite (prō'tōmērīt) *n.* [Gk. *protos*, first; *meros*, part.] Anterior part of medullary protoplasm of adult gregarines; *cf.* *primita*.

protomite (prōtōm'īt) *n.* [Gk. *pro*, early; *tome*, cutting; *mitos*, thread.] Stage between tomont and tomita in life cycle of Holotricha.

protomitosis (prō'tōmītō'sīs) *n.* [Gk. *protos*, first; *mitos*, thread.] Primi-

tive mitosis; cruciform division, as in slime fungi; *promitosis*.

protomonostelic (prō'tōmōn'ōstēl'īk) *a.* [Gk. *protos*, first; *monos*, alone; *stela*, column.] *Appl.* stem or root with protostele or central cylinder.

protomont (prō'tōmōnt') *n.* [Gk. *pro*, early; *tome*, cutting; *onta*, beings.] Transitory stage, between trophont and tomont, with condensed central nucleus, in life cycle of Holotricha.

protomorphic (prō'tōmōr'fīk) *a.* [Gk. *protos*, first; *morphe*, form.] First-formed; primordial.

protonema (prō'tōnē'mā) *n.* [Gk. *protos*, first; *nema*, thread.] The filamentous thallus of mosses from which the moss plant buds; early filamentous stage in development of certain algae.

protonematoid (prō'tōnē'mätoid) *a.* [Gk. *protos*, first; *nema*, thread; *eidos*, form.] Like a protonema.

protonephridial (prō'tōnēfrīd'īāl) *a.* [Gk. *protos*, first; *nephros*, kidney.] *Appl.* excretory water-vascular system of flat-worms.

protonephridium (prō'tōnēfrīd'īūm) *n.* [Gk. *protos*, first; *nephros*, kidney; *idion*, dim.] The primitive excretory tube, with coelomic opening or protonephridiostome.

protoneurone (prō'tōnū'rōn) *n.* [Gk. *protos*, first; *neurone*, nerve.] The primitive intermediary cell connecting receptor with effector; cellular unit of nerve net; a unipolar ganglion cell.

protopathic (prō'tōpāth'īk) *a.* [Gk. *protos*, first; *pathos*, feeling.] *Appl.* stimuli and nerve systems concerned with sensation of pain and of marked variations in temperature.

protopepsia (prō'tōpēp'siā) *n.* [Gk. *protos*, first; *pepsis*, digestion.] Solution and alteration of food-material accomplished in stomach.

protoperithecium (prō'tōpēr'ithē'siūm) *n.* [Gk. *protos*, first; *peri*, around; *theke*, case.] Primary haploid perithecium, as in certain Pyrenomycetes.

protophloem (prō'tōflō'ēm) *n.* [Gk. *protos*, first; *phloios*, inner bark.] The first phloem elements of a vascular bundle.

protophyte (prō'tōfit) *n.* [Gk. *protos*, first; *phyton*, plant.] A unicellular vegetable organism or primitive plant; protophyton; the gametophyte in the antithetic alternation of generations, *opp.* antiphyte.

protoplasm (prō'tōplāzm) *n.* [Gk. *protos*, first; *plasma*, form.] Living cell substance; cytoplasm and karyoplasm.

protoplasmic (prō'tōplāz'mīk) *a.* [Gk. *protos*, first; *plasma*, form.] *Pert.* or consisting of protoplasm.

protoplasmic bead,—structure on anterior part of middle piece of mammalian spermatozoon.

protoplast (prō'tōplāst) *n.* [Gk. *protos*, first; *plastos*, formed.] An energid; a living uninucleate primitive protoplasmic unit; protoplasm of one cell.

protopod (prō'tōpōd) *a.* [Gk. *protos*, first; *pous*, foot.] With feet or legs on anterior segments.

protopodite (prō'tōpōdit) *n.* [Gk. *protos*, first; *pous*, foot.] Basal segment of arthropod limb.

protopile (prō'tōtil, -ptil) *n.* [Gk. *protos*, first; *ptilon*, feather.] The primary prepena, succeeded by mesoptile.

protoscolex,—prosclex, *q.v.*

protospore (prō'tōspōr) *n.* [Gk. *protos*, first; *sporos*, seed.] A spore of first generation; a mycelium-producing spore.

protostele (prō'tōstēlē) *n.* [Gk. *protos*, first; *stēle*, column.] Concentric bundle or pithless central cylinder of vascular tissue of most roots and some stems.

prosternum (prō'tōstēr'nūm) *n.* [Gk. *protos*, first; *sternon*, chest.] Sternite of cheliceral segment of prosoma in Acarina.

prostigmata (prō'tōstīg'mătā) *n. plu.* [Gk. *protos*, first; *stigma*, pricked mark.] Two primary gill slits of embryo.

protostoma (prō'tōst'ōmā) *n.* [Gk.

protos, first; *stoma*, mouth.] Original mouth of gastrula; blastopore.

protostylic (prō'tōstīl'ik) *a.* [Gk. *protos*, first; *stylos*, column.] Exhibiting protostyly, or having lower jaw connected with cranium by original dorsal end of arch.

protothallus (prō'tōthāl'ūs) *n.* [Gk. *protos*, first; *thallos*, young shoot.] First-formed structure which develops into a thallus, as of a lichen.

prototheca (prō'tōthē'kā) *n.* [Gk. *protos*, first; *theke*, box.] A skeletal cup-shaped plate at aboral end of coral embryo, the first skeletal formation.

prototherian (prō'tōthē'riān) *a.* [Gk. *protos*, first; *therion*, small animal.] *Appl.* egg-laying mammals without placenta.

prototroch (prō'tōtrōk) *n.* [Gk. *protos*, first; *trochos*, wheel.] A pre-oral circlet of cilia of a trochosphere or trochelminth larva.

prototrophic (prō'tōtrōf'ik) *a.* [Gk. *protos*, first; *trophe*, nourishment.] Nourished from one supply or in one manner only; feeding on inorganic matter, *appl.* iron, sulphur, and nitrifying bacteria; *appl.* plants.

prototype (prō'tōtīp) *n.* [Gk. *protos*, first; *typos*, model.] An original type species or example; an ancestral form.

protovertebrae (prō'tōvēr'tēbrē) *n. plu.* [Gk. *protos*, first; *L. vertebra*, vertebra.] A series of primitive mesodermal segments in a vertebrate embryo.

protoxylem (prō'tōzīlēm) *n.* [Gk. *protos*, first; *xylon*, wood.] Primary xylem lying next pith of stems.

protozoa,—*plu.* of protozoon.

protozoaea (prō'tōzōē'ā) *n.* [Gk. *protos*, first; *zoon*, animal.] Stage in life-history of certain arthropods, succeeding free-swimming nauplius.

protozoology (prō'tōzōōl'ōjī) *n.* [Gk. *protos*, first; *zoon*, animal; *logos*, discourse.] The branch of zoology dealing with protozoa.

protozoon (prō'tōzō'ōn) *n.* [Gk. *protos*, first; *zoon*, animal.] A unicellular or non-cellular animal organism. *Plu.* protozoa.

protozygote (prō'tōzī'gōt) *n.* [Gk. *protos*, first; *zygon*, yoke.] A homozygote having dominant characters, *opp.* allozygote.

protractor (prōtrāk'tōr) *n.* [L. *pro*, forth; *tractus*, drawn out.] A muscle which draws out or extends a part. *Opp.* retractor.

protiaene (prō'triēn) *n.* [Gk. *pro*, before; *triaina*, trident.] A triaene with anteriorly-directed branches.

protrophic,—prototrophic.

provascular tissue,—procambium.

proventriculus (prō'ventrik'ūlūs) *n.* [L. *pro*, before; *ventriculus*, small stomach.] In decapod crustaceans, the so-called stomach containing gastric mill; in insects, the digestive chamber anterior to stomach; in worms, that anterior to gizzard; in birds, the glandular stomach anterior to gizzard.

provinculum (prōving'kūlūm) *n.* [L. *pro*, before; *vinculum*, bond.] A primitive hinge of young stages of certain Lamellibranchia.

provitamin (prōvī'tāmin) *n.* [L. *pro*, before; *vita*, life; *ammoniacum*, resinous gum.] Precursor of a vitamin; previtamin.

proximal (prōk'simāl) *a.* [L. *proximus*, next.] Nearest body or centre or base of attachment; *opp.* distal.

prozonite (prōzō'nīt) *n.* [Gk. *pro*, before; *zone*, girdle.] The anterior ring of a diplosomite. *Opp.* metazonite.

prozymogen (prōzī'mōjēn) *n.* [Gk. *pro*, before; *zyme*, leaven; *-genes*, producing.] Precursor of zymogen, activated by secretin.

pruinose (proo'īnōs) *a.* [L. *pruina*, hoar-frost.] Covered with whitish particles or globules; covered by bloom.

psalterium (sōltē'rīūm, psōl-) *n.* [L. *psalterium*, psalter.] The third stomach of ruminants, the omasum or manyplies; the lyra, a thin triangular lamina joining lateral portions of fornix.

psammophilous (sāmōf'ilūs, psām-) *a.* [Gk. *psammos*, sand; *philos*, loving.] Thriving in sandy places.

psammophore (sām'ōfōr, psām-) *n.* [Gk. *psammos*, sand; *phora*, carrying.] One of rows of hairs under mandibles and sides of head in desert ants, used for removal of sand grains.

psammophyte (sām'ōfit, psām-) *n.* [Gk. *psammos*, sand; *phyton*, plant.] A plant growing in sandy or gravelly ground.

psammosere (sām'ōsēr, psām-) *n.* [Gk. *psammos*, sand; L. *serere*, to put in a row.] A plant succession originating in a sandy area, as on dunes.

pseudambulacrum (sū'dāmbulā'krūm, psū-) *n.* [Gk. *pseudes*, false; L. *ambulare*, to walk.] The lancet-plate with adhering side-plates and covering plates, of Blastoidea.

pseudannual (sūdān'ūāl, psū-) *n.* [Gk. *pseudes*, false; L. *annus*, year.] A plant which completes its growth in one year but provides a bulb or other means of surviving winter.

pseudapogamy (sū'dāpōg'amī, psū-) *n.* [Gk. *pseudes*, false; *apo*, away; *gamos*, marriage.] Fusion of pair of vegetative nuclei, as in certain fungi and in fern prothallus.

pseudoposematic (sūdāp'ōsemāt'ik, psū-) *a.* [Gk. *pseudes*, false; *apo*, from; *sema*, sign.] Imitating warning coloration or other protective features of hurtful animals.

pseudapospory (sū'dāpōs'pōrī, psū-) *n.* [Gk. *pseudes*, false; *apo*, away; *sporos*, seed.] Spore formation without haplois, the gametophyte originating from a diploid spore.

pseudaxis (sūdāk'sis, psū-) *n.* [Gk. *pseudes*, false; *axis*, axle.] An apparent main axis; sympodium.

pseudepisematic (sūdēp'isēmāt'ik, psū-) *a.* [Gk. *pseudes*, false; *epi*, upon; *sema*, sign.] Having or displaying alluring coloration or markings.

pseudhaemal (sūdēh'māl, psū-) *a.* [Gk. *pseudes*, false; *haima*, blood.] *Appl.* the vascular system of certain worms and echinoderms.

pseudoholoptic (sū'dhōlōp'tik, psū-) *a.* [Gk. *pseudes*, false; *holos*, whole; *optikos*, relating to sight.] Intermediate between holoptic and dichoptic, conditions in eyes of Diptera.

pseudimago (sū'dimā'gō, psū-) *n.* [Gk. *pseudes*, false; *L. imago*, image.] Stage between pupa and imago in metamorphosis of certain insects; subimago.

pseudoacrorhagus (sū'dōāk'rōrā'-gūs, psū-) *n.* [Gk. *pseudes*, false; *akros*, summit; *rhax*, grape.] A structure resembling an acrorhagus, but containing ordinary ectodermal nematocysts, in certain Actiniaria.

pseudo-aethalium (sū'dōēthā'līum, psū-) *n.* [Gk. *pseudes*, false; *aithalos*, soot.] A dense aggregation of distinct sporangia, as in Myxomycetes. *Cf.* aethalium.

pseudoalveolar (sū'dōāl'vēōlār, psū-) *a.* [Gk. *pseudes*, false; *L. alveus*, hollow.] *Appl.* a structure of cytoplasm containing starch grains or deutoplasm spheres.

pseudoangiocardic (sū'dōān'jiō-kār'pik, psū-) *a.* [Gk. *pseudes*, false; *angeion*, vessel; *karpōs*, fruit.] With an exposed hymenium temporarily enclosed by incurved edge of pileus or by a secondary pseudovelum.

pseudoaposematic,—*see* pseudaposematic.

pseudoaquatic (sū'dōākwāt'ik, psū-) *a.* [Gk. *pseudes*, false; *L. aqua*, water.] Thriving in moist ground.

pseudarticulation (sū'dōār'tikūlā'-shūn, psū-) *n.* [Gk. *pseudes*, false; *L. articulus*, joint.] Incomplete subdivision of a segment, or groove having the appearance of a joint, as in limbs of arthropods.

pseudobasidium (sū'dōbāsīd'īum, psū-) *n.* [Gk. *pseudes*, false; *basis*, base; *idion*, dim.] A large basidium with thickened wall, constituting a resting spore.

pseudoblepharoplast (sū'dōblēf'ārō-plāst, psū-) *n.* [Gk. *pseudes*, false; *blepharis*, eyelash; *plastos*, formed.] Temporary concentration of chro-

matin near centriole in sperm-formation of certain insects.

pseudobrachium (sū'dōbrāk'īum, psū-) *n.* [Gk. *pseudes*, false; *brachion*, arm.] Appendage for locomotion on a substratum, formed from elongated pterygials of pectoral fin of Pediculates.

pseudobranch (sū'dōbrāngk', psū-) *n.* [Gk. *pseudes*, false; *brangchia*, gills.] An accessory gill of some fishes, not respiratory in function; spiracular or vestigial hyoidean gill.

pseudobulb (sū'dōbūlb, psū-) *n.* [Gk. *pseudes*, false; *L. bulbos*, bulb.] A thickened internode of orchids, for storage of water and reserves.

pseudobulbil (sū'dōbūl'bīl, psū-) *n.* [Gk. *pseudes*, false; *L. bulbos*, bulb.] An outgrowth of some ferns, a substitute for sporangia.

pseudobulbous (sū'dōbūl'būs, psū-) *a.* [Gk. *pseudes*, false; *L. bulbos*, bulb.] Adapted to xerophytic conditions through development of pseudobulbs.

pseudocarp (sū'dōkār'p, psū-) *n.* [Gk. *pseudes*, false; *karpōs*, fruit.] A false fruit, one in which other parts than ovary assist in formation.

pseudocellus (sū'dōsēl'ūs, psū-) *n.* [Gk. *pseudes*, false; *L. ocellus*, little eye.] One of scattered sense organs of unknown function in certain insects.

pseudocentrous (sū'dōsēn'trūs, psū-) *a.* [Gk. *pseudes*, false; *L. centrum*, centre.] *Appl.* vertebrae composed of two pairs of arcualia meeting and forming a suture laterally.

pseudochromatin,—prochromatin.

pseudocilia (sū'dōsil'īā, psū-) *n. plu.* [Gk. *pseudes*, false; *L. cilium*, eyelid.] Protoplasmic threads projecting from cell through surrounding sheath of mucilage, as in Tetrasporaceae.

pseudocoel (sū'dōsēl, psū-) *n.* [Gk. *pseudes*, false; *koilos*, hollow.] The narrow cavity between the two laminae of septum lucidum; so-called fifth ventricle of brain; space between mesodermal tissue of the

body wall and gastrodermis, derived from blastocoel, as in Trochelminthes and Nemathelminthes.

pseudoconch (sū'dōkōngk, psū-) *n.* [Gk. *pseudes*, false; *kongche*, shell.] A structure developed above and behind the true concha in crocodiles.

pseudocone (sū'dōkōn, psū-) *a.* [Gk. *pseudes*, false; *konos*, cone.] *Appl.* insect compound eye having cone cells filled with transparent gelatinous material.

pseudoconidium (sū'dōkōnid'ium, psū-) *n.* [Gk. *pseudes*, false; *konis*, dust; *idion*, *dim.*] One of the spores formed on lateral projections of pseudomycelium of certain yeasts.

pseudocjugation (sū'dōkōnjooḡā'shūn, psū-) *n.* [Gk. *pseudes*, false; *L. cum*, with; *jugum*, yoke.] Conjugation of Sporozoa in which two individuals, temporarily and without true fusion, join end to end, protomerite to deutomerite, or side to side.

pseudocostate (sū'dōkōs'tāt, psū-) *a.* [Gk. *pseudes*, false; *L. costa*, rib.] False-veined, having a marginal vein uniting all others.

pseudoculus (sū'dōk'ūlus) *n.* [Gk. *pseudes*, false; *L. oculus*, eye.] An oval area on each side of head of Pauropoda, possibly a receptor for mechanical vibrations.

pseudocyst (sū'dōs'ist, psū-) *n.* [Gk. *pseudes*, false; *kystis*, bladder.] A residual protoplasmic mass which swells and ruptures, liberating spores of Sporozoa.

pseudodeltidium (sū'dōdēl'tid'ium, psū-) *n.* [Gk. *pseudes*, false; Δ , delta; *idion*, *dim.*] A plate partly or entirely closing deltidial fissure in ventral valve of certain Testicardines.

pseudoderm (sū'dōdērm, psū-) *n.* [Gk. *pseudes*, false; *derma*, skin.] A kind of covering or skin of certain compact sponges, formed also towards pseudogastric cavity.

pseudodont (sū'dōdōnt, psū-) *a.* [Gk. *pseudes*, false; *odous*, tooth.]

Having false or horny teeth, as monotremes.

pseudo-elater (sū'dōēl'ātēr) *n.* [Gk. *pseudes*, false; *elater*, driver.] One of the chains of cells in sporogonium of liverworts.

pseudofoliaceous (sū'dōfōliā'shūs, psū-) *a.* [Gk. *pseudes*, false; *L. folium*, leaf.] With expansions resembling leaves.

pseudogamy (sū'dōḡāmī, psū-) *n.* [Gk. *pseudes*, false; *gamos*, marriage.] Union of hyphae from different thalli; activation of ovum by a spermatozoon which plays no part thereafter; pseudomixis.

pseudogaster (sū'dōḡās'tēr, psū-) *n.* [Gk. *pseudes*, false; *gaster*, stomach.] An apparent gastral cavity of certain sponges, opening to exterior by pseudo-ostium and having true oscula opening into itself.

pseudogastrula (sū'dōḡās'troolā, psū-) *n.* [Gk. *pseudes*, false; *gaster*, stomach.] The stage of Sycon development when archaeocytes become completely enclosed by flagellate cells.

pseudogyne (sū'dōjīnē, psū-) *n.* [Gk. *pseudes*, false; *gyne*, female.] A worker ant with female thoracic characters.

pseudoheart, — the axial organ of echinoderms; one of the contractile vessels pumping blood from dorsal to ventral vessel in annelids.

pseudoidium (sū'dōid'ium, psū-) *n.* [Gk. *pseudes*, false; *oon*, egg; *idion*, *dim.*] A separate hyphal cell which may germinate. *Plu.* pseudoidia.

pseudolamina (sū'dōlām'īnā, psū-) *n.* [Gk. *pseudes*, false; *L. lamina*, plate.] Expanded apical portion of a phyllode.

pseudomanubrium (sū'dōmānū'brīum, psū-) *n.* [Gk. *pseudes*, false; *L. manubrium*, handle.] The manubrium considered as a process of subumbrella where the former contains the gastric cavity, in certain Trachylinae.

pseudometamerism (sū'dōmēt'ām-ērīzm, psū-) *n.* [Gk. *pseudes*, false; *meta*, after; *meros*, part.] Apparent serial segmentation; an approximation to metamerism, as in certain flat-worms.

pseudomitotic (sū'dōmitōt'ik, psū-) *a.* [Gk. *pseudes*, false; *mitos*, thread.] Diaschistic, *q.v.*

pseudomixis (sū'dōmik'sis, psū-) *n.* [Gk. *pseudes*, false; *mixis*, mingling.] A form of nuclear fusion, not regularly sexual, leading to embryo formation; pseudogamy; somatogamy.

pseudomonocarpous (sū'dōmōnō-kār'pūs, psū-) *a.* [Gk. *pseudes*, false; *monos*, alone; *karpos*, fruit.] With seeds retained in leaf-bases until liberated, as in cycads.

pseudomonocotyledonous (sū'dōmōn'ōkōtilē'dōnūs, psū-) *a.* [Gk. *pseudes*, false; *monos*, alone; *cotyledon*, cup-like hollow.] With two cotyledons coalescing to appear as one.

pseudomonocyclic (sū'dōmōn'ōsik'-lik, psū-) *a.* [Gk. *pseudes*, false; *monos*, alone; *kyklos*, circle.] *Appl.* crinoids with infrabasals absent in adults but present in young or in near ancestors.

pseudomycelium (sū'dōmisē'līūm, psū-) *n.* [Gk. *pseudes*, false; *mykes*, fungus.] An assemblage of chains or groups of adherent cells, of yeasts; sprout mycelium.

pseudomycorrhiza (sū'dōmī'kōrī'zā) *n.* [Gk. *pseudes*, false; *mykes*, fungus; *rhiza*, root.] Association of short roots of conifers with parasitic fungi in the absence of mycorrhizal fungi.

pseudonavicella (sū'dōnāvīsēl'ā psū-) *n.* [Gk. *pseudes*, false; *L. navicella*, small boat.] A small boat-shaped spore containing sporozoites, in Sporozoa.

pseudonotum (sū'dōnō'tūm, psū-) *n.* [Gk. *pseudes*, false; *noton*, back.] Postnotum or postscutellum.

pseudonuclein,—*paranuclein, q.v.*

pseudonucleoli (sū'dōnūklē'ōli, psū-) *n. plu.* [Gk. *pseudes*, false; *L. nu-*

cleus, kernel.] Knots or granules in nuclear reticulum not true nucleoli.

pseudonychium (sū'dōnik'lūm, psū-) *n.* [Gk. *pseudes*, false; *onyx*, claw.] A lobe or process between claws of insects.

pseudo-ostulum (sū'dōōs'kūlūm, psū-) *n.* [Gk. *pseudes*, false; *L. ostulum*, small mouth.] The exterior opening of a pseudogaster.

pseudo-ostiolum (sū'dōōs'tiōlūm, psū-) *n.* [Gk. *pseudes*, false; *L. ostiolum*, small door.] A small opening formed by breaking down of cell-walls or tissues, in certain fungi without perithecia; pseudo-ostiole, pseudostiole.

pseudoparaphysis (sū'dōpārāf'isis, psū-) *n.* [Gk. *pseudes*, false; *para*, beside; *phyein*, to grow.] Basidiolum, *q.v.*; a paraphysoid, *q.v.*

pseudoparenchyma (sū'dōpārēng'-kimā, psū-) *n.* [Gk. *pseudes*, false; *para*, beside; *engchyma*, infusion.] A tissue-like collection of hyphae which resembles parenchyma.

pseudopenis (sū'dōpē'nīs, psū-) *n.* [Gk. *pseudes*, false; *L. penis*, penis.] The protruded evaginated portion of male deferent duct, in certain Oligochaeta; copulatory structure in Orthoptera.

pseudoperculum (sū'dōpēr'kūlūm, psū-) *n.* [Gk. *pseudes*, false; *L. operculum*, lid.] A structure resembling an operculum or closing membrane.

pseudoperianth (sū'dōpēr'iānth, psū-) *n.* [Gk. *pseudes*, false; *peri*, round; *anthos*, flower.] An archegonium-investing envelope of certain liverworts.

pseudoperidium (sū'dōpērīd'lūm, psū-) *n.* [Gk. *pseudes*, false; *peridium*, small wallet.] The acidiospore envelope of certain fungi.

pseudoplasmodium (sūdōplāzmō'diūm, psū-) *n.* [Gk. *pseudes*, false; *plasma*, form.] An aggregation of amoebulae without fusion of their protoplasm.

pseudopod (sū'döpöd, psū-) *n.* [Gk. *pseudes*, false; *pous*, foot.] A foot-like body-wall process of certain larvae; a pseudopodium, *q.v.*

pseudopodiospore (sūdöpō'diō-spōr, psū-) *n.* [Gk. *pseudes*, false; *pous*, foot; *sporos*, seed.] An amoebula or amoeboid swarm-spore which moves by means of pseudopodia.

pseudopodium (sū'döpō'diūm, psū-) *n.* [Gk. *pseudes*, false; *pous*, foot; *eidos*, form.] A blunt protrusion of ectoplasm serving for locomotion and prehension in protozoa; in certain mosses, the sporogonium-supporting pedicel; pseudopod.

pseudopore (sū'döpōr, psū-) *n.* [Gk. *pseudes*, false; *poros*, channel.] A small orifice between outermost tube and intercanal system of certain sponges.

pseudopregnancy (sū'dōprēg'nānsī, psū-) *n.* [Gk. *pseudes*, false; *L. prae*, before; *gignere*, to beget.] Condition of development of accessory reproductive organs simulating true pregnancy, although fertilisation has not taken place.

pseudopupa (sū'döpū'pā, psū-) *n.* [Gk. *pseudes*, false; *L. pupa*, puppet.] The semi-pupa or coarctate stage of certain insect larvae.

pseudoramosa (sū'dōrā'mōs, psū-) *a.* [Gk. *pseudes*, false; *L. ramus*, branch.] Having false branches.

pseudoramulus (sū'dōrām'ulūs, psū-) *n.* [Gk. *pseudes*, false; *L. ramulus*, small branch.] A spurious branch of certain algae.

pseudoraphe (sūdōrā'fē, psū-) *n.* [Gk. *pseudes*, false; *rhaphe*, seam.] A smooth axial area in some diatoms.

pseudo-reduction,—the preliminary division of chromatin-rods preceding formation of tetrads and actual reduction in maturation.

pseudorhabdites (sū'dōrāb'dīts, psū-) *n. plu.* [Gk. *pseudes*, false; *rhabdos*, rod.] Granular masses of formed secretion produced by gland-cells of Rhabdocoelida.

pseudorhiza (sū'dōrizā) *n.* [Gk. *pseudes*, false; *rhiza*, root.] A

root-like structure connecting mycelium in the soil with the fruit-body of a fungus; storage trunk. *Plu.* pseudorhizae.

pseudosacral (sū'dōsā'krāl, psū-) *a.* [Gk. *pseudes*, false; *L. sacer*, sacred.] *Appl.* sacral vertebra attached to pelvis by transverse process and not by sacral rib.

pseudoscolex (sū'dōskō'lēks, psū-) *n.* [Gk. *pseudes*, false; *scolex*, worm.] Modified anterior proglottides of certain cestodes where true scolex is absent.

pseudosematic (sū'dōsēmāt'ik, psū-) *a.* [Gk. *pseudes*, false; *sema*, sign.] Having false coloration or markings, as in protective mimicry, or for alluring or aggressive purposes.

pseudoseptate (sū'dōsēp'tāt, psū-) *a.* [Gk. *pseudes*, false; *L. septum*, division.] Apparently, but not morphologically, septate.

pseudoseptum (sū'dōsēp'tum, psū-) *n.* [Gk. *pseudes*, false; *L. septum*, partition.] A perforated or incomplete septum; septum with pores, as in certain fungi.

pseudosessile (sū'dōsēs'īl, psū-) *a.* [Gk. *pseudes*, false; *L. sedere*, to sit.] *Appl.* abdomen of petiolate insects when petiole is so short that abdomen is close to thorax.

pseudosperm (sū'dōspērm, psū-) *n.* [Gk. *pseudes*, false; *sperma*, seed.] A false seed or carpel.

pseudospore (sū'dōspōr, psū-) *n.* [Gk. *pseudes*, false; *sporos*, seed.] An encysted resting myxamoeba; formerly, a basidiospore.

pseudostele (sū'dōstēlē, psū-) *n.* [Gk. *pseudes*, false; *stèle*, pillar.] An apparently stelar structure, as midrib of leaf.

pseudostigma (sū'dōstīg'mā) *n.* [Gk. *pseudes*, false; *stigma*, mark.] A cup-like pit of integument, as the socket of a sensory seta in Acarina.

pseudostiole,—pseudo-ostiolum.

pseudostipe (sū'dōstīp, psū-) *n.* [Gk. *pseudes*, false; *L. stipēs*, stalk.] A stem-like structure formed by presumptive spore-producing tissue, as in Gasteromycetes.

- pseudostipula** (sū'döstip'ulā, psū-) *n.* [Gk. *pseudes*, false; L. *stipula*, small stalk.] Part of lamina at base of leaf-stalk, which resembles a stipule.
- pseudostoma** (sū'dös'tömā, psū-) *n.* [Gk. *pseudes*, false; *stoma*, mouth.] A temporary mouth or mouth-like opening; a pseudo-ostaculum.
- pseudostroma** (sū'döstrō'mā, psū-) *n.* [Gk. *pseudes*, false; *stroma*, bedding.] A mass of mixed fungous and host cells.
- pseudothecium** (sū'döthē'siūm, psū-) *n.* [Gk. *pseudes*, false; *theke*, case.] A spherical fruit-body resembling a perithecium.
- pseudotrachea** (sū'dotrā'kēā, psū-) *n.* [Gk. *pseudes*, false; L. *trachia*, windpipe.] A trachea-like structure; one of the trachea-like food-channels of labellum, as in Diptera.
- pseudo-unipolar** (sū'döünipō'lār, psū-) *a.* [Gk. *pseudes*, false; L. *unus*, one; *polus*, pole.] *Appl.* unipolar nerve cells with a T-shaped or Y-shaped axon, formed by partial fusion of axons of originally bipolar cells.
- pseudovarium** (sū'dövä'rīūm, psū-) *n.* [Gk. *pseudes*, false; L. *ovarium*, ovary.] Ovary producing pseudova.
- pseudovelum** (sū'dově'lūm, psū-) *n.* [Gk. *pseudes*, false; *velum*, covering, veil.] Velum without muscular and nervous cells, in Scyphozoa; pseudoveil of fungi, formed by union of contemporaneous outgrowths from pileus and stipe, protecting the immature hymenium.
- pseudovitellus** (sū'dövītē'l'ūs, psū-) *n.* [Gk. *pseudes*, false; L. *vitellus*, egg-yolk.] A cellular double-string structure of Aphididae, a supposed substitute for Malpighian tubes.
- pseudovum** (sūdö'vūm, psū-) *n.* [Gk. *pseudes*, false; L. *ovum*, egg.] An ovum that can develop without fertilisation; a parthenogenetic ovum; the earlier condition of viviparously-produced Aphididae.
- pseudozoaea** (sū'dözōē'ā, psū-) *n.* [Gk. *pseudes*, false; *zoon*, animal.] A larval stage of stomatopods, so-called from its resemblance to zoaea stage of decapods.
- psilophyte** (sī'lōfīt) *n.* [Gk. *psilos*, without trees; *phyton*, plant.] Any plant of savanna.
- psoas** (sō'ās, psō'ās) *n.* [Gk. *psoa*, loins.] Name of two loin muscles, major and minor, formerly magnus and parvus.
- psorosperms** (sō'rōspērmz, psō'-) *n. plu.* [Gk. *psora*, itch; *sperma*, seed.] The resistant encysted stages of Sporozoa; minute parasitic organisms generally.
- psychogenetic** (sī'kōjēnēt'ik) *a.* [Gk. *psyche*, soul; *genesis*, descent.] *Pert.* mental development; caused by the mind; of mental origin; psychogenic.
- psychon** (sī'kōn, psī'-) *n.* [Gk. *psyche*, mind.] Synapse during passage of impulse from one nerve cell to the next.
- psychophysics** (sī'kōfiz'iks) *n.* [Gk. *psyche*, mind; *physisikos*, physical.] The study of qualitative and quantitative relations between physical stimuli and sensations.
- psychophysiology** (sī'kōfizīōl'ōjī) *n.* [Gk. *psyche*, mind; *physis*, nature; *logos*, discourse.] Physiology in relation to mental processes.
- psychosomatic** (sī'kōsōmāt'ik) *a.* [Gk. *psyche*, mind; *soma*, body.] *Pert.* relationship between mind and body; *pert.* or having body reactions to mental stimuli.
- Psychozoic** (sī'kōzō'ik) *a.* [Gk. *psyche*, mind; *zoon*, animal.] *Pert.* or *appl.* geological era in which Man predominates; anthropozoic.
- psychrophil** (sī'krōfīl, psī-) *a.* [Gk. *psychros*, cold; *philein*, to love.] Thriving at relatively low temperatures, at below 20° C., *appl.* certain bacteria; psychrophilic. *n.* Psychrophile.
- psychrophyte** (sī'krōfīt, psī-) *n.* [Gk. *psychros*, cold; *phyton*, plant.] A plant which grows on a cold substratum.

pteralia (tērā'liā, ptēr-) *n. plu.* [Gk. *pteron*, wing.] Axillary sclerites forming articulation of wing in insects.

pterate,—pteroct.

pterergate (tērēr'gāt, ptēr-) *n.* [Gk. *pteron*, wing; *ergates*, worker.] A worker or a soldier ant with vestigial wings.

pteridine (tēr'idīn, ptēr-) *n.* [Gk. *pteron*, wing.] A yellow pigment, first isolated from wings of butterflies, a constituent of folic acid.

pteridology (tēr'idōl'ōjī, ptēr-) *n.* [Gk. *ptēris*, fern; *logos*, discourse.] The branch of botany dealing with ferns.

pteridophyte (tēr'idōfīt, ptēr-) *n.* [Gk. *ptēris*, fern; *phyton*, plant.] A vascular cryptogam, any of the ferns, club-mosses, or horse-tails.

pterins (tēr'inz, ptēr-) *n. plu.* [Gk. *pteron*, wing.] Wing pigments of certain butterflies, related chemically to uric acid.

pterion (tēr'ion, ptēr-) *n.* [Gk. *pteron*, wing.] The point of junction of parietal, frontal, and great wing of spheonoid; *appl.* ossicle, a sutural bone.

pterocardiac (tēr'ōkār'diāk, ptēr-) *a.* [Gk. *pteron*, wing; *kardia*, stomach.] *Appl.* ossicles with curved ends in gastric mill of Crustacea.

pterocarpous (tēr'ōkār'pūs, ptēr-) *a.* [Gk. *pteron*, wing; *karpōs*, fruit.] With winged fruit.

pterodium (tērō'diūm, ptēr-) *n.* [Gk. *pteron*, wing.] A winged fruit or samara.

pteroid (tēr'oid, ptēr-) *a.* [Gk. *pteron*, wing; *ptēris*, fern; *eidōs*, form.] Resembling a wing; like a fern.

pteromorphae (tēr'ōmōr'fē, ptēr-) *n. plu.* [Gk. *pteron*, wing; *morphe*, shape.] Outgrowths from notogaster which cover sides of podo-soma and third and fourth pair of legs in certain Acarina.

pteropaedes (tēr'ōpē'dēz, ptēr-) *n. plu.* [Gk. *pteron*, wing; *pais*, child.] Birds able to fly when newly hatched.

pteropegum (tēr'ōpē'gūm, ptēr-) *n.* [Gk. *pteron*, wing; *pege*, source.] An insect's wing socket.

pteropleurite (tēr'ōploō'rīt, ptēr-) *n.* [Gk. *pteron*, wing; *pleura*, side.] Thoracic sclerite between wing insertion and mesopleurite, in Diptera.

pteropodial (tēr'ōpō'diāl, ptēr-) *a.* [Gk. *pteron*, wing; *pous*, foot.] *Appl.* wing-like lobes of mid-foot of Pteropoda or sea-butterflies.

pteropodium (tēr'ōpō'diūm, ptēr-) *n.* [Gk. *pteron*, wing; *pous*, foot.] A winged foot, as of certain bats.

pterospermous (tēr'ōspēr'mūs, ptēr-) *a.* [Gk. *pteron*, wing; *sperma*, seed.] With winged seeds.

pterostigma (tēr'ōstīg'mā, ptēr-) *n.* [Gk. *pteron*, wing; *stigma*, mark.] An opaque cell on insect wings.

pterote (tērōt, ptēr'ōt) *a.* [Gk. *pterotos*, winged.] Winged; having wing-like outgrowths; alate.

pterotheca (tēr'ōthē'kā, ptēr-) *n.* [Gk. *pteron*, wing; *theke*, case.] The wing-case of pupae.

pterotic (tērō'tik, ptēr-) *n.* [Gk. *pteron*, wing; *ous*, ear.] A cranial bone overlying horizontal semi-circular canal of ear *a. Appl.* bone between prootic and epiotic.

pteroylglutamic acid,—vitamin M or folic acid, *q.v.*

pterygial (tērīj'iāl, ptēr-) *a.* [Gk. *pteryx*, wing.] *Pert.* a wing or fin; *appl.* a bone supporting a fin-ray; *pert.* a pterygium.

pterygiophore (tērīj'iōfōr, ptēr-) *n.* [Gk. *pterygion*, little wing; *pherein*, to bear.] One of the cartilaginous fin-rays; an actinost, *q.v.*

pterygium (tērīj'iūm, ptēr-) *n.* [Gk. *pterygion*, little wing.] A prothoracic process of weevils; a small lobe on base of under-wings in Lepidoptera; a vertebrate limb.

pterygobranchiate (tēr'igōbrāng'-klāt, ptēr-) *a.* [Gk. *pteryx*, wing; *branchia*, gills.] Having spreading or feathery gills, as certain Crustacea.

pterygoda (těr'igōdā, ptēr-) *n. plu.*

[Gk. *pteryx*, wing; *eidos*, form.]

The tegulae of an insect.

pterygoid (těr'igoid, ptēr-) *n.* [Gk.

pteryx, wing; *eidos*, form.] A

cranial bone. *a.* Wing-like; *appl.* wing-like processes of sphenoid, canal, fissure, fossa, plexus, muscles.

pterygoideus,—externus and internus, muscles causing protrusion and raising of mandible.

pterygomandibular (těr'igōmāndib'-

ulār, ptēr-) *a.* [Gk. *pteryx*, wing;

L. mandibulum, jaw.] *Pert.* pterygoid and mandible; *appl.* a tendinous band or raphe of buccopharyngeal muscle.

pterygomaxillary (těr'igōmāksil'ārī,

ptēr-) *a.* [Gk. *pteryx*, wing;

L. maxilla, jaw.] *Appl.* a fissure between maxilla and pterygoid process of sphenoid.

pterygopalatine (těr'igōpāl'ātfn,

ptēr-) *a.* [Gk. *pteryx*, wing; *L.*

palatus, palate.] *Pert.* region of pterygoid and palatal cranial bones; *appl.* canal, fossa, groove, ganglion; pterygopalatal.

pterygophore,—pterygiophore, *q.v.*

pterygopodial (těr'igōpō'diāl, ptēr-)

a. [Gk. *pteryx*, wing; *pous*, foot.]

Appl. mucous glands associated with claspers, in elasmobranchs.

pterygoquadrate (těr'igōkwōd'rāt,

ptēr-) *a.* [Gk. *pteryx*, wing; *L.*

quadratus, squared.] *Appl.* a cartilage constituting dorsal half of mandibular arch of certain fishes.

pterygospinous (těr'igōspī'nūs,

ptēr-) *a.* [Gk. *pteryx*, wing; *L.*

spina, spine.] *Appl.* a ligament between lateral pterygoid plate and spinous process of sphenoid.

pterylae (těr'ilē, ptēr-) *n. plu.* [Gk.

pteron, feather; *hyle*, a wood.] A

bird's feather-tracts, skin areas on which feathers grow; *opp.* apteria.

ptylosis (tērīlō'sis, ptēr-) *n.* [Gk.

pteron, feather; *hyle*, a wood.]

Arrangement of pterylae and apteria in birds.

ptilinum (tīlī'nūm, ptīl-) *n.* [Gk.

ptilon, feather.] A head-vesicle or

bladder-like expansion of head of a fly emerging from pupa.

ptilopaedic (tīlōpē'dīk, ptīl-) *a.* [Gk.

ptilon, feather; *païs*, child.]

Covered with down when hatched.

ptilosis,—ptylosis.

ptyalin (tī'ālin, ptī-) *n.* [Gk. *ptyalon*,

saliva.] The starch-digesting enzyme

of saliva; salivary amylase.

ptyophagous (tīōf'āgūs, ptī-) *a.*

[Gk. *ptyein* to spit; *phagein*, to

eat.] Digesting, by host cells, the cytoplasm emitted by tips of hyphae, *appl.* a type of mycorrhiza; *cf.* plasmoptysis.

ptyosome (tī'ōsōm, ptī-) *n.* [Gk.

ptyein, to spit; *soma*, body.] Cyto-

plasmic mass formed by plasmoptysis, *q.v.*, in ptyophagous mycorrhiza

ptyxis (tīk'sīs, ptīk'sīs) *n.* [Gk. *ptyxis*,

fold.] The form in which young leaves are folded or rolled on themselves in the bud.

puberty (pū'bērtī) *n.* [*L. pubertas*,

adult state.] Beginning of sexual maturity.

puberulent (pūbēr'ulént) *a.* [*L.*

pubes, adult.] Covered with down or fine hair.

pubes (pūbēz) *n.* [*L. pubes*, adult.]

The pubic region.

pubescence (pū'bēs'ēnt) *n.* [*L. pu-*

bescere, to become mature.] Downy or hairy covering on some plants and certain insects.

pubescent (pūbēs'ēnt) *a.* [*L.*

pubescere, to become mature.]

Covered with soft hair or down.

pubic (pū'bīk) *a.* [*L. pubes*, mature.]

In region of pubes; *appl.* arch, ligament, symphysis, tubercle, vein.

pubis (pū'bis) *n.* [*L. pubes*, mature.]

Anterior part of hip-bone, consisting of body and rami; antero-ventral portion of pelvic girdle; os pubis.

pudendal (pūdēn'dāl) *a.* [*L. pudere*,

to be ashamed.] In region of pudendum; *appl.* artery, cleft, nerve, veins; pudic.

pudendum (pūdēn'dūm) *n.* [*L.*

pudere, to be ashamed.] Vulva, or external female genitalia.

pudic,—pudendal.

puffing,—ejection of a cloud of spores from ripe ascocarp or apothecium.

pullulation (pŭl'ulā'shŭn) *n.* [L. *pullulare*, to sprout.] Gemmation; reproduction by vegetative budding, as in yeast cells.

pulmobranchia (pŭl'möbräng'kiä) *n.* [L. *pulmo*, lung; Gk. *branchia*, gills.] A gill-like organ adapted to air-breathing conditions; a lung book, as of spiders.

pulmogastric (pŭl'mögäs'trik) *a.* [L. *pulmo*, lung; Gk. *gaster*, stomach.] *Pert.* lungs and stomach.

pulmonary (pŭl'mönäri) *a.* [L. *pulmo*, lung.] *Pert.* lungs; *appl.* artery, ligament, valves, veins, pleura, etc.

pulmonary cavity or **sac**,—the mantle-cavity of molluscs without ctenidia.

pulmones (pŭlmō'nēz) *n. plu.* [L. *pulmo*, lung.] Lungs.

pulp (pŭlp) *n.* [L. *pulpa*, fruit-pulp.] Soft, fleshy part of fruit; the dental papilla; soft mass of splenic tissue; mesodermal core of feather cylinder.

pulsating vacuole,—contractile vacuule.

pulse (pŭls) *n.* [L. *pulsus*, driven.] The beat or throb observable in arteries, due to action of heart. [O.F. *pols*, from L. *puls*, pottage.] A legume; a leguminous plant.

pulse wave,—a wave of increased pressure over arterial system, started by ventricular systole.

pulsellum (pŭlsēl'ŭm) *n.* [L. *pulsare*, to beat.] A flagellum situated at posterior end of protozoan body.

pulverulent (pŭlvēr'ülēnt) *a.* [L. *pulverulentus*, dusty.] Powdery; powdered.

pulvillar (pŭlvil'är) *a.* [L. *pulvillus*, small cushion.] *Pert.* or at a pulvillus.

pulvilliform (pŭlvil'iförm) *a.* [L. *pulvillus*, small cushion; *forma*, shape.] Like a small cushion.

pulvillus (pŭlvil'ŭs) *n.* [L. *pulvillus*,

small cushion.] Pad, process, or membrane on foot or between claws, sometimes serving as an adhesive organ, in insects; lobe beneath each claw.

pulvinar (pŭlvī'när) *n.* [L. *pulvinar*, couch.] An angular prominence on thalamus. [L. *pulvinus*.] *a.* Cushion-like; *pert.* a pulvinus.

pulvinate (pŭl'vinät) *a.* [L. *pulvinus*, cushion.] Cushion-like; *appl.* a repugnatorial gland in ants; having a pulvinus.

pulvinoid (pŭlvī'noid) *a.* [L. *pulvinus*, cushion; Gk. *eidos*, form.] Resembling a pulvinus; *appl.* modified petiole.

pulvinulus (pŭlvīn'ülŭs) *n.* [L. *pulvinus*, cushion.] A pulvillus *q.v.*; a branched outgrowth of thallus of certain lichens.

pulvinus (pŭlvī'nŭs) *n.* [L. *pulvinus*, cushion.] A cellular swelling at junction of axis and leaf-stalk.

pulviplume (pŭl'viploom) *n.* [L. *pulvis*, powder; *pluma*, feather.] A powder-down feather.

punctate (pŭng'ktät) *a.* [L. *punctum*, point.] Dotted; having surface covered with small holes or dots; having a dot-like appearance.

punctulate (pŭng'ktülät) *a.* [L. *dim.* of *punctum*, point.] Covered with very small dots or holes.

punctum (pŭng'ktŭm) *n.* [L. *punctum*, point.] A minute dot, point, or orifice, as puncta lacrimalia, puncta vasculosa; apex of a growing point, punctum vegetationis.

puncture (pŭng'ktŭr) *n.* [L. *punctura*, prick.] A small round surface depression.

pupa (pŭ'pä) *n.* [L. *pupa*, puppet.] The third or chrysalis stage of insect life; insect enclosed in a case, during stage in metamorphosis preceding imago; embryo with series of transverse rings of cilia, in Holothuria.

pupal (pŭ'päl) *a.* [L. *pupa*, puppet.] *Pert.* pupa.

puparium (pūpā'riūm) *n.* [L. *pupa*, puppet.] The casing of a pupa; a coarctate pupa; pupal instar, exemplified in blow-fly.

pupate (pūpāt') *v.* [L. *pupa*, puppet.] To pass into the pupal stage.

pupiform (pū'pifōrm) *a.* [L. *pupa*, puppet; *forma*, shape.] Pupa-shaped; pupa-like.

pupigerous (pūpij'ērūs) *a.* [L. *pupa*, puppet; *gerere*, to bear.] Containing a pupa.

pupil (pū'pil) *n.* [L. *pupilla*, pupil of eye.] Aperture of iris through which rays pass to retina; central spot of an ocellus.

pupillary (pū'pilārī, pūpil'ārī) *a.* [L. *pupilla*, pupil of eye.] *Pert.* pupil of eye; *appl.* a membrane.

pupiparous (pūpip'ārūs) *a.* [L. *pupa*, puppet; *parere*, to beget.] Bringing forth young already developed to the pupa stage, as certain parasitic insects.

purines (pū'rīnz) *n. plu.* [Gk. *pyren*, nucleus.] Basic substances containing carbon, hydrogen, and nitrogen, as adenine and guanine, occurring during metabolism.

Purkinje cells [*J. E. Purkinje*, Bohemian physiologist]. An incomplete stratum of flask-shaped cells between the molecular and nuclear layers of cerebellar cortex.

Purkinje fibres,—muscle fibres in atrioventricular bundle and its terminal strands, differing from typical cardiac fibres especially in a higher rate of conduction of the contractile impulse.

pustule (pūs'tūl) *n.* [L. *pustula*, blister.] A blister-like prominence.

pusule (pū'sūl) *n.* [L. *pusula*, blister.] Non-contractile vacuole containing watery fluid, filling or emptying by duct, found in many Dinoflagellata; a contractile vacuole in some protophytes; pusula.

putamen (pūtā'mēn) *n.* [L. *putamen*, nut-shell.] The hard endocarp or stone of some fruits; lateral part of lentiform nucleus of cerebrum; shell membrane of bird's egg.

putrefaction (pū'trēfāk'shūn) *n.* [L. *putrefacere*, to make rotten.] The decomposition of proteins by anaerobic micro-organisms.

pycnial,—pycnidial.

pycnic (pik'nīk) *a.* [Gk. *pyknos*, thick.] Thick-set; *appl.* type of body-build, short, stocky, with broad face and head; pyknic.

pycnid,—pycnidium.

pycnidia,—*plu.* of pycnidium.

pycnidial,—*pert.* pycnidia; *appl.* drops: fungal nectar; pycnial.

pycnidiophore (pīknīd'īōfōr) *n.* [Gk. *pyknos*, dense; *idion*, *dim.*; *pherein*, to bear.] A conidiophore producing pycnidia.

pycnidiospore (pīknīd'īōspōr) *n.* [Gk. *pyknos*, dense; *idion*, *dim.*; *sporos*, seed.] The spore produced by pycnidia; pycnidial conidium.

pycnidium (pīknīd'īūm) *n.* [Gk. *pyknos*, dense; *idion*, *dim.*] A small flask-shaped organ or sporogonium containing slender filaments which form pycnidiospores or spermatia by abstriction, in life-history of wheat rust; receptacle for stylospores in fungi and lichens; pycnium.

pycnoconidangium,—spermogonium.

pycnoconidium, **pycnogonidium**,—pycnidiospore, *q.v.*

pycnoplasson (pīk'nōplās'ōn) *n.* [Gk. *pyknos*, dense; *plassein*, to mould.] An unexpanded form of plasmon.

pycnosis (pīknō'sīs) *n.* [Gk. *pyknosis*, condensation.] Cell-degeneration; nuclear condensation; formation of intensely staining clump of chromosomes; thickening of thallus, as in certain Ascomycetes; also pyknosis.

pycnospore,—pycnidiospore, *q.v.*

pycnotic (pīknōt'īk) *a.* [Gk. *pyknosis*, condensation.] Characterised by, or *pert.* pycnosis; *appl.* small irregular nucleus of degenerated cells; also pyknotic.

pycnoxylic (pīknōzi'līk) *a.* [Gk. *pyknos*, dense; *xylon*, wood.] Having compact wood. *Opp.* manoxylic.

pygal (pī'gāl) *a.* [Gk. *pyge*, rump.] Situated at or *pert.* posterior end of back; *appl.* certain plates of chelonian carapace.

pygidial (pī'jīd'īāl) *a.* [Gk. *pygidion*, narrow rump.] *Pert.* pygidium; *appl.* paired repugnatorial glands in certain beetles.

pygidium (pījīd'īūm) *n.* [Gk. *pygidion*, narrow rump.] A caudal shield covering abdomen of certain arthropods; terminal uncovered abdominal segment of a beetle; compound terminal segment of a scale insect. sensory dorsal plate of ninth abdominal segment of fleas; anal segment of annelids.

pygochord (pī'gōkōrd) *n.* [Gk. *pyge*, rump; *chorde*, cord.] A ventral median ridge-like outgrowth of intestinal epithelium in certain Enteropneusta.

pygostyle (pī'gōstīl) *n.* [Gk. *pyge*, rump; *stylos*, column.] An up-turned compressed bone at end of vertebral column of birds, formed by fusion of hindmost vertebrae.

pykn-,—see *pycin-*.

pylangium (pīlān'jīūm) *n.* [Gk. *pyle*, gate; *angeion*, vessel.] Proximal portion of a truncus arteriosus.

pylocyte (pī'lōsit) *n.* [Gk. *pylos*, gateway; *kytos*, hollow.] A pore-cell at inner end of small funnel-shaped depression, the porocyte of certain sponges.

pylome (pī'lōm) *n.* [Gk. *pyloma*, gate.] In certain Sarcodina, an aperture for emission of pseudopodia and reception of food.

pyloric (pīlōr'īk) *a.* [Gk. *pyloros*, gate-keeper.] *Pert.* or in region of pylorus; *appl.* artery, antrum, glands, orifice, valve, vein; *appl.* posterior region of gizzard in decapod crustaceans, and to ossicle in gastric mill; *appl.* sphincter between mid-gut and hind-gut, in insects.

pylorus (pīlō'rūs) *n.* [Gk. *pyloros*, gate-keeper.] Lower orifice of stomach, communicating with duodenum.

pyogenic (pīōjēn'īk) *a.* [Gk. *pyon*,

pus; *gennacin*, to produce.] Pus-forming; *appl.* bacteria; pyo-genetic.

pyramid (pīr'āmīd) *n.* [L. *pyramis*, pyramid.] A conical structure, protuberance, eminence, as of cerebellum, medulla oblongata, temporal bone, vestibule, kidney; pyramidal cell of cerebral cortex; a piece of the dental apparatus of echinoids.

pyramidal (pīrām'īdāl) *a.* [L. *pyramis*, pyramid.] Conical; like a pyramid; *appl.* leaves, a carpal bone, brain cells, tract, lobes, processes, muscles.

pyrene (pī'rēn) *n.* [Gk. *pyren*, fruit-stone.] A fruit-stone or kernel; putamen.

pyrenin (pīrē'nīn) *n.* [Gk. *pyren*, fruit-stone.] The substance of a true nucleolus, paranuclein.

pyrenocarp (pīrē'nōkārp) *n.* [Gk. *pyren*, fruit-stone; *karpos*, fruit.] An ascocarp with a small terminal opening; a perithecium; a fleshy fruit with stone or hard kernel; drupaceous fruit.

pyrenoid (pīrē'noid) *n.* [Gk. *pyren*, fruit-stone; *eidos*, form.] A colourless plastid of lower plants, a centre of starch formation. *a.* Nucleiform.

pyrenophore (pīrē'nōfōr) *n.* [Gk. *pyren*, fruit-stone; *pherein*, to bear.] Part of cytoplasm which contains the nucleus.

pyretic (pīrēt'īk) *a.* [Gk. *pyretos*, fever.] Increasing heat production; causing rise in body temperature.

pyridoxine,—vitamin B₆, rat anti-dermatitis factor or adermin; C₈H₁₁NO₈.

pyriform (pīr'īfōrm) *a.* [L. *pyrum*, pear; *forma*, shape.] Pear-shaped; *appl.* cells, spores, etc.; *appl.* a muscle, a larval sensory organ in Bryozoa, an organ of larval molluscs, vestigial left vesicula seminalis of nautilus, a type of silk gland in spiders, etc.; piriform, *q.v.*

pyxidiate (pīksīd'īāt) *a.* [Gk. *pyxis*, box; *idion*, dim.] Opening like a box by transverse dehiscence; *pert.*, or like, a pyxidium or a pyxis.

pyxidium (piksid'ium) *n.* [Gk. *pyxis*, box; *idion*, *dim.*] A pyxis, or a capsular fruit which dehisces transversely.

pyxis (pik'sis) *n.* [Gk. *pyxis*, box.] A dilatation of podetium in lichens.

Q

Q-disc,—anisotropic or A-disc, *q.v.*

quadrangular (kwōdrāng'gūlār) *a.* [L. *quadrangulus*.] *Appl.* lobes or lobules of cerebellar hemispheres, connected by monticulus.

quadrant (kwōd'rānt) *n.* [L. *quadrans*, fourth part.] All the cells derived by divisions from one of the first four cleavage cells or blastomeres.

quadrat (kwōd'rāt) *n.* [L. *quadratus*, squared.] A small square or rectangular area delimited on ground selected for botanical or other biological studies.

quadrate (kwōd'rāt) *n.* [L. *quadratus*, squared.] The bone with which lower jaw articulates in birds, reptiles, amphibians, and fishes; ligament extending from annular ligament to neck of radius; one of lobes of liver; lobe of cerebrum, the praecuneus. *a. Appl.* plates: paired sclerites at base of sting in Hymenoptera.

quadratojugal (kwōdrā'tōjoo'gāl) *n.* [L. *quadratus*, squared; *jugum*, yoke.] Membranous bone connecting quadrate and jugal bones; quadratomaxillary.

quadratmandibular (kwōdrā'tō-māndib'ūlār) *a.* [L. *quadratus*, squared; *mandibulum*, jaw.] *Pert.* quadrate and mandibulum.

quadratmaxillary,—quadratojugal.

quadratus (kwōdrā'tūs) *n.* [L. *quadratus*, squared.] Name of several muscles: quadratus femoris, labii, lumborum, plantae.

quadricarpellary (kwōd'rikār'pēlārī) *a.* [L. *quattuor*, four; Gk. *karpōs*, fruit.] Containing four carpels.

quadriceps (kwōd'risēps) *n.* [L. *quat-*

tuor, four; *caput*, head.] Muscle in front of thigh, extending lower leg and divided into four portions at upper end.

quadrifarious (kwōdrifā'rīūs) *a.* [L. *quadrifarium*, four-fold.] In four rows; *appl.* leaves.

quadrifid (kwōd'rifid) *a.* [L. *quattuor*, four; *findere*, to cleave.] Deeply cleft into four parts.

quadrifoliate (kwōd'rifō'līāt) *a.* [L. *quattuor*, four; *folium*, leaf.] Four-leaved; *appl.* compound palmate leaf, with four leaflets arising at a common point.

quadrigeminal bodies,—corpora quadrigemina, *q.v.*

quadrijugate (kwōd'rījoo'gāt) *a.* [L. *quattuor*, four; *jugum*, yoke.] *Appl.* pinnate leaf having four pairs of leaflets.

quadrilobate (kwōd'rīlō'bāt) *a.* [L. *quattuor*, four; *lobus*, lobe.] Four-lobed.

quadrilocular (kwōd'rīlōk'ūlār) *a.* [L. *quattuor*, four; *loculus*, compartment.] Having four loculi or chambers, as ovary, or anthers, of certain plants.

quadrimate (kwōd'rīmāk'ūlāt) *a.* [L. *quattuor*, four; *macula*, spot.] Having four spots.

quadrinate,—quadrifoliate, *q.v.*

quadripennate (kwōd'ripēn'āt) *a.* [L. *quattuor*, four; *penna*, wing.] With four wings.

quadriseiral (kwōdrīv'risē'rīāl) *a.* [L. *quattuor*, four; *series*, row.] Arranged in four rows or series; quadriseriate.

quadrītubercular (kwōd'rītūbēr'kūlār) *a.* [L. *quattuor*, four; *tuberculum*, small hump.] *Appl.* teeth with four tubercles.

quadrivalent (kwōdrīv'ālēt) *n.* [L. *quattuor*, four; *valere*, to be strong.] Association of four chromosomes held together by chiasmata between diplotene and metaphase of first division in meiosis.

quadrivoltine (kwōd'rīvōl'tīn) *a.* [L. *quattuor*, four; It. *volta*, time.] Having four broods in a year; *appl.* certain silkworms.

quadrumanous (kwöd'roo'mänūs) *a.* [L. *quattuor*, four; *manus*, hand.] Having hind-feet, as well as front feet, constructed like hands, as most Primates except man.

quadrupedal (kwöd'roo'pēdāl) *a.* [L. *quadrupes*, four-footed.] Having, or walking on, four feet; *pert.* four-footed animals.

quadruplex (kwöd'rooplēks) *a.* [L. *quadruplex*, four-fold.] Having four dominant genes, in polyploidy.

quartet (kwōrtēt') *n.* [L. *quartus*, fourth.] A group of four nuclei or cells resulting from the two meiotic mitoses; *cf.* tetrad; four cells derived from a sporocyte, or resulting from meridional and horizontal cleavage.

quaternary (kwōtēr'nārī) *a.* [L. *quaterni*, four each.] *Appl.* flower symmetry when there are four parts in a whorl.

Quaternary,—*appl.* or *pert.* period comprising Pleistocene and Holocene epochs.

quaternate (kwōtēr'nāt) *a.* [L. *quaterni*, four each.] In sets of four; *appl.* leaves growing in fours from one point.

queen (kwēn) *n.* [A.S. *cwen*, woman.] The reproductive female in colonies of social Hymenoptera.

quiescence (kwīēs'ēns) *n.* [L. *quiescere*, to become still.] Temporary cessation of development, or of other activity, owing to unfavourable environment; *cf.* diapause.

quill (kwil) *n.* [M.E. *quille*, feather.] The calamus or barrel of a feather; the calamus and rachis; a hollow spine, as of porcupine.

quill feathers,—feathers of wings (remiges) and tail (rectrices) of bird.

quill-knobs,—tubercles or exostoses on ulna of birds, for attachment of fibrous ligaments connecting with quill follicle.

quinary (kwī'nārī) *a.* [L. *quini*, five each.] *Appl.* flower symmetry when there are five parts in a whorl.

quinate (kwī'nāt) *a.* [L. *quini*, five each.] *Appl.* five leaflets growing from one point; quinquefoliate.

quincuncial (kwinkūn'siāl) *a.* [L. *quinque*, five; *uncia*, twelfth part.] Arranged in quincunx.

quincunx (kwīn'kūngks) *n.* [L. *quinque*, five; *uncia*, twelfth part.] Arrangement of five structures of which four are at corners of a square and one at centre; arrangement of five petals or leaves, of which two are exterior, two interior, and the fifth partly exterior, partly interior.

quinquecostate (kwīn'kwēkōs'tāt) *a.* [L. *quinque*, five; *costa*, rib.] Having five ribs on the leaf.

quinquefarious (kwīn'kwēfā'rīūs) *a.* [L. *quinque*, five; *fariam*, in rows.] In five directions, rows, or parts.

quinquefid (kwīn'kwēfid) *a.* [L. *quinque*, five; *findere*, to cleave.] Cleft into five parts.

quinquefoliate (kwīn'kwēfō'lliāt) *a.* [L. *quinque*, five; *folium*, leaf.] With five leaves.

quinquefoliolate,—quinate, *q.v.*

quinelobate (kwīn'kwēlō'bāt) *a.* [L. *quinque*, five; L.L. *lobus*, lobe.] With five lobes.

quinquepartite (kwīn'kwēpār'tīt) *a.* [L. *quinque*, five; *partitus*, divided.] Divided into five parts.

quinquetubercular (kwīn'kwētübēr'-kūlār) *a.* [L. *quinque*, five; *tuberculum*, small hump.] *Appl.* molar teeth with five tubercles.

R

race (rās) *n.* [F. *race*, race, family.] A permanent variety; a particular breed; a microspecies.

racemation (rās'ēmā'shūn) *n.* [L. *racemus*, bunch.] A cluster, as of grapes.

raceme (rāsēm') *n.* [L. *racemus*, bunch.] Inflorescence having a common axis and stalked flowers in acropetal succession, as hyacinth.

racemiferous (rāsēmīf'ērūs) *a.* [L. *racemus*, bunch; *ferre*, to carry.] Bearing racemes.

racemiform (rāsēmīfōrm) *a.* [L. *racemus*, bunch; *forma*, shape.] In the form of a raceme.

racemose (rās'ēmōs) *a.* [L. *racemus*, bunch.] Bearing flowers in clusters; *appl.* inflorescence with monopodial branching, as racemes, spikes; *appl.* glands with many branches whose shape suggests a raceme.

racemule (rās'ēmūl) *n.* [L. *racemulus*, small bunch.] A small raceme.

racemulose (rāsēm'ūlōs) *a.* [L. *racemulus*, small bunch.] In small clusters.

rachial (rā'kiāl) *a.* [Gk. *rhachis*, spine.] *Pert.* a rachis; rhachial.

rachidial (rākīd'iāl) *a.* [Gk. *rhachis*, spine.] *Pert.* a rachis.

rachidian (rākīd'iān) *a.* [Gk. *rhachis*, spine.] Placed at or near a rachis; *appl.* median tooth in row of teeth of radula.

rachiform (rā'kīfōrm) *a.* [Gk. *rhachis*, spine; L. *forma*, shape.] In the form of a rachis.

rachiglossate (rā'kīglōs'āt) *a.* [Gk. *rhachis*, spine; *glossa*, tongue.] Having a radula with pointed teeth, as whelks.

rachilla (rākīl'ā) *n.* [Gk. *rhachis*, spine.] A small rachis; axis of spikelet, as in grasses.

rachiodont (rāk'iōdōnt) *a.* [Gk. *rhachis*, spine; *odontos*, tooth.] *Appl.* egg-eating snakes with well-developed hypophyses of anterior thoracic vertebrae, which function as teeth.

rachistichous (rāk'iōs'tīkūs) *a.* [Gk. *rhachis*, spine; *stichos*, row.] Having a succession of somactids as axis of fin skeleton, as in dipnoans.

rachis (rā'kis) *n.* [Gk. *rhachis*, spine.] The spinal column; the stalk or axis; the shaft of a feather; median dorsal elevation of opisthosoma in trilobites; rhachis.

rachitomous (rākīt'ōmūs) *a.* [Gk. *rhachis*, spine; *tomos*, cut.] Temnospondylous, *q.v.*

racket cells,—*see* raquet mycelium.

radial (rā'diāl) *a.* [L. *radius*, ray.] *Pert.* radius; *pert.* ray of an echinoderm; *appl.* plates supporting oral disc of crinoids; *appl.* fibres supporting retina; *appl.* leaves or

flowers growing out like rays from a centre. *n.* An endoskeletal support of fin in fishes; cross-vein of wing in insects.

radial notch,—lesser sigmoid cavity of coronoid process of ulna.

radial symmetry,—arrangement of similar parts round a median vertical axis, as in jellyfish.

radiale (rādiā'lē) *n.* [L. *radius*, ray.] A carpal bone in line with radius.

radiant (rā'diānt) *a.* [L. *radians*, radiating.] Emitting rays; radiating; *pert.* radiants; *pert.* radiation. *n.* An organism or group of organisms dispersed from an original geographical location.

radiate (rā'diāt) *a.* [L. *radius*, ray.] Radially symmetrical; radiating, *appl.* sternocostal ligaments; stellate, *appl.* ligament connecting head of rib with two vertebrae and their intervertebral disc.

radiate-veined,—veined in a palmate manner.

radiatiform (rā'diā'tīfōrm) *a.* [L. *radius*, ray; *forma*, shape.] With radiating marginal florets.

radical (rād'ikāl) *a.* [L. *radix*, root.] Arising from root close to ground, as basal leaves and peduncles. *n.* A group of atoms that does not exist in the free state but as a unit in a compound, as OH, NH₄, C₆H₅, etc.

radicant (rād'ikānt) *a.* [L. *radicari*, to take root.] With roots developing from stem; rooting.

radicate (rād'ikāt) *a.* [L. *radicatus*, rooted.] Rooted; possessing root-like structures; fixed to substrate as if rooted.

radicel (rād'isél) *n.* [*Dim.* of L. *radix*, root.] A small root; rootlet.

radicolous,—radicolous.

radiciflorous (rādīsīf'lō'rūs) *a.* [L. *radix*, root; *flos*, flower.] With flowers arising at extreme base of stem; rhizanthous.

radiciform (rādīsī'fōrm) *a.* [L. *radix*, root; *forma*, shape.] Resembling a root; radicine.

radicivorous (rād'isīv'ōrūs) *a.* [L. *radix*, root; *vorare*, to devour.] Root-eating.

radicle (răd'ikl) *n.* [L. *radix*, root.] A small root ; primary root ; lower part of tigellum.

radicolous (rădik'ölüs) *a.* [L. *radix*, root ; *colere*, to inhabit.] Inhabiting roots ; radicolous.

radicose (răd'ikös) *a.* [L. *radix*, root.] With large root.

radicular (rădik'ülär) *a.* [L. *radix*, root.] *Pert.* a radicle or radicle.

radicule (răd'ikül) *n.* [L. *radix*, root.] A rootlet.

radiculose (rădik'ülös) *a.* [L. *radix*, root.] Having many rootlets.

radiobiology (ră'diöbïöl'oji) *n.* [L. *radius*, ray ; Gk. *bios*, life ; *logos*, discourse.] The study of the effects of radioactivity on living cells and organisms.

radiocarbon (ră'diökâr'bön) *n.* [L. *radius*, ray ; *carbo*, charcoal.] A radioactive isotope of carbon, C¹⁴, used in chronological and physiological research.

radiocarpal (ră'diökâr'päl) *a.* [L. *radius*, ray ; L.L. *carpus*, wrist.] *Pert.* radius and wrist.

radioecology (ră'diököl'öji) *n.* [L. *radius*, ray ; Gk. *oikos*, household ; *logos*, discourse.] The study of radiation as affecting the relationship between living organisms and environment, and of the ecological effects and destination of radioisotopes ; radiation ecology.

radioiodine (ră'diöi'ödîn) *n.* [L. *radius*, ray ; Gk. *io-eides*, violet-coloured.] A radioactive isotope of iodine, I¹³¹, used in studying the thyroid gland.

radiole (răd'ïöl) *n.* [L. *radiolus*, small shuttle.] A spine of sea-urchins.

radiomedial (ră'diomē'diäl) *n.* [L. *radius*, ray ; *medius*, middle.] A cross-vein between radius and medius of insect wing.

radiophosphorus (ră'diöfös'förüs) *n.* [L. *radius*, ray ; Gk. *phosphoros*, bringing light.] A radioactive isotope of phosphorus, P³², used in physiological research and therapeutics.

radioreceptor (ră'diörēsēp'tör) *n.*

[L. *radius*, ray ; *receptor*, receiver.] A terminal organ for receiving light, or temperature, stimuli.

radiosymmetrical (ră'diösímēt'rikäl) *a.* [L. *radius*, ray ; Gk. *syn*, with ; *metron*, measure.] Having similar parts similarly arranged round a central axis.

radioulna (ră'diöül'nä) *n.* [L. *radius*, ray ; *ulna*, elbow.] Radius and ulna combined as a single bone.

radioulnar (ră'diöül'när) *a.* [L. *radius*, ray ; *ulna*, elbow.] *Pert.* radius and ulna.

radius (ră'diüs) *n.* [L. *radius*, ray.] A bone of arm or fore-limb between humerus and carpals, in some vertebrates fused with ulna ; bar-bule, of feather ; one of radial depressions or markings on fish scales ; a plate of Aristotle's lantern ; an insect wing-vein ; radial area of disc in sea-anemones ; ray of composite flower.

radix (ră'diks) *n.* [L. *radix*, root.] A root ; point of origin of a structure, as of aorta.

radula (răd'ülä) *n.* [L. *radere*, to scrape.] A short and broad strip of membrane with longitudinal rows of chitinous teeth in mouth of most gastropods ; *cf.* odontophore ; a hyphal structure with numerous short lateral sterigmata bearing radula spores ; a genus of liverworts.

radulate (răd'ülät) *a.* [L. *radere*, to scrape.] Having a radula or rasping organ ; raduliferous.

raduliform (răd'üliförm) *a.* [L. *radere*, to scrape ; *forma*, shape.] Like a radula or flexible file.

Rainey's corpuscles [G. *Rainey*, English morphologist]. Spores of Sarcocystis, an elongated sporozoan found in voluntary muscle fibres.

Rainey's tubes, — elongated sacs found in substance of voluntary muscle, which are adult stages of Dolichosporidia ; Miescher's tubes.

ramal (ră'mäl) *a.* [L. *ramus*, branch.] Belonging to branches ; originating on a branch.

- ramate** (rā'māt) *a.* [L. *ramus*, branch.] Branched.
- ramellose** (rām'elōs) *a.* [L. *ramus*, branch.] Having small branches.
- rament, ramenta**,—*see* ramentum.
- ramentaceous** (rā'mēntā'shūs) *a.* [L. *ramenta*, shavings.] Like a ramentum; covered by ramenta.
- ramentiferous** (rā'mēntif'ērūs) *a.* [L. *ramenta*, shavings; *ferre*, to carry.] Bearing ramenta.
- ramentum** (rāmēn'tūm) *n.* [L. *ramenta*, shavings.] One of brown scale-like structures found on fern leaves; *plu.* ramenta, elongated membranous hairs, epidermal outgrowths.
- rameous** (rā'mēūs) *a.* [L. *ramus*, *pert.* branches.] Branched; *pert.* a branch.
- ramet** (rā'mēt) *n.* [L. *ramus*, branch.] An individual member of a clone; *cf.* ortet.
- rami**,—*plu.* of ramus.
- rami communicantes**,—nerve fibres connecting sympathetic ganglia and spinal nerves.
- ramicorn** (rā'mikōrn) *a.* [L. *ramus*, branch; *cornu*, horn.] Having branched antennae, as some insects.
- ramiferous** (rāmif'ērūs) *a.* [L. *ramus*, branch; *ferre*, to bear.] Branched.
- ramification** (rām'ifikā'shūn) *n.* [L. *ramus*, branch; *facere*, to make.] Branching; a branch of a tree, nerve, artery, etc.
- ramiflorous** (rām'iflō'rūs) *a.* [L. *ramus*, branch; *flos*, flower.] Having flowers on branches.
- ramiform** (rām'ifōrm) *a.* [L. *ramus*, branch; *forma*, shape.] Branch-like.
- ramigenous**,—ramiparous.
- ramigerous** (rāmij'ērūs) *a.* [L. *ramus*, branch; *gerere*, to carry.] Bearing branches.
- ramiparous** (rāmip'ārūs) *a.* [L. *ramus*, branch; *parere*, to beget.] Producing branches.
- ramoconidium** (rā'mōkōnīd'īūm) *n.* [L. *ramus*, branch; Gk. *konis*, dust; *idion*, *dim.*] A fungal spore produced from a portion of a conidiophore.
- ramose** (rā'mōs) *a.* [L. *ramosus*, branching.] Much branched.
- ramule** (rām'ul) *n.* [L. *ramulus*, twig.] A small branch; ramulus.
- ramuliferous** (rām'ulif'ērūs) *a.* [L. *ramulus*, twig; *ferre*, to bear.] Bearing small branches.
- ramulose** (rām'ulōs), **ramulous**, (rām'ulūs) *a.* [L. *ramulus*, twig.] With many small branches.
- ramulus** (rām'ulūs), **ramuscule** (rāmūs'kūl) *n.* [L. *ramulus*, twig.] A small branch.
- ramus** (rā'mūs) *n.* [L. *ramus*, branch.] Any branch-like structure; part of chewing apparatus of rotifers; barb of feathers; mandible, or its proximal part, of vertebrates; branch of a spinal nerve. *Plu.* rami.
- ranine** (rā'nīn) *a.* [L. *rana*, frog.] *Pert.* under surface of tongue; *appl.* artery and vein.
- ranivorous** (rāniv'ōrūs) *a.* [L. *rana*, frog; *vorare*, to devour.] Feeding on frogs.
- Ranvier's nodes** [L.-A. *Ranvier*, French histologist]. Constrictions or interruptions of medullary sheath of a nerve fibre.
- raphe** (rā'fē) *n.* [Gk. *rhaphe*, seam.] A seam-like suture, as junction line of some fruits; line of fusion of funicle and anatropous ovule; a slit-like line in diatom valves; line, or ridge, of perineum, scrotum, hard palate, medulla oblongata, etc.
- raphides** (rāf'idēz) *n. plu.* [Gk. *rhaphe*, needle.] Minute crystals, frequently of calcium oxalate, formed as metabolic by-products in plant cells.
- raphidiferous** (rāf'idif'ērūs) *a.* [Gk. *rhaphe*, needle; L. *ferre*, to carry.] Containing raphides.
- raptatory** (rāp'tātōri) *a.* [L. *raptare*, to rob.] Preying.
- raptorial** (rāptō'riāl) *a.* [L. *raptor*, robber.] *Appl.* birds of prey.
- raquet mycelium**,—hyphae enlarged at one end of each segment, small and large ends alternating; racquet or racket mycelium.

rasorial (rāsō'riāl) *a.* [L. *radere*, to scratch.] Adapted for scratching or scraping, as fowls.

rassenkreis (rās'enkris) *n.* [Ger. *Rasse*, race; *Kreis*, circle.] Polytropic species.

rastellus (rāstēl'ūs) *n.* [L. *rastellus*, rake.] A group of teeth in arachnid chelicera.

rate-gene,—a gene which influences the rate of a developmental process; rate-factor.

Rathke's pouch [*M. H. Rathke*, German anatomist]. Diverticulum of buccal ectoderm in vertebrates, the commencement of prepituitary gland formation; craniobuccal or neurobuccal pouch.

ratite (rāt'it) *a.* [L. *ratis*, raft.] Having an unkeeled sternum. *Opp.* carinate.

rattle (rātł) *n.* [M.E. *ratelen*, to clatter.] The sound-producing series of horny joints at end of rattlesnake's tail; crepitaculum.

Rauber's layer [*A. Rauber*, Estonian anatomist]. Covering layer of cells formed by part of trophoblast on embryonic ectoderm.

Ravian process [*J. J. Rau* or *Ravius*, Dutch anatomist]. Folian process, *q.v.*

ray (rā) *n.* [L. *radius*, ray.] A parenchymatous band penetrating from cortex towards centre of stem; one of bony spines supporting fins; division of a radiate animal, as arm of asteroid; one of straight uriniferous tubules passing from medulla through cortex of kidney (medullary rays).

ray florets,—the outermost florets of a composite flower.

reaction time,—time interval between stimulus and response.

reaction type,—phenotype.

read,—the abomasum or fourth stomach of ruminants.

recapitulation theory,—theory that ontogeny tends to recapitulate phylogeny, that individual life-history reproduces certain stages in life-history of race; biogenetic law; Haeckel's law

receptacle (rēsēp'tākl) *n.* [L. *recipere*, to receive.] An organ used as a repository; peduncle of a racemose inflorescence; torus or thalamus of a flower; modified end of thallus branch containing conceptacles in algae, or soredia in lichens; a pycnidium; a sporophore; terminal disc of mosses.

receptacular (rēsēptāk'ulār) *a.* [L. *recipere*, to receive.] *Peri.* a receptacle of any kind; largely composed of the receptacle, as certain fruits.

receptaculum (rēsēptāk'ulūm) *n.* [L. *receptaculum*, reservoir.] A receptacle of any kind.

receptaculum chyli,—the cavity in lower part of thoracic duct; cisterna chyli.

receptaculum ovorum,—an internal sac in which ova are collected in earthworm.

receptaculum seminis,—female organ for reception of spermatozoa; spermatheca.

receptive spot,—small mucilaginous area adjacent to aperture in an ovum at which sperm enters; point of sperm entry into ovum; antheridial wall at point of contact with oogonium and of penetration of oosphere by fertilisation tube.

receptor (rēsēp'tōr) *n.* [L. *receptor*, receiver.] Part of cell which functions as an antibody in combining with outside molecules or haptophores; specialised tissue or cell sensitive to a specific stimulus; sense organ.

recess (rēsēs') *n.* [L. *recessus*, withdrawn.] A fossa, sinus, cleft, or hollow space, as omental, optic, pineal recess; recessus.

recessive (rēsēs'iv) *a.* [L. *recessus*, withdrawn.] *Appl.* character possessed by one parent which in a hybrid is masked by the corresponding alternative or dominant character derived from the other parent; the allele which is not manifest in the F₁ heterozygote.

- reciprocal hybrids**,—two hybrids, one descended from male of one species and female of another, the other from a female of first and a male of second.
- recline** (rĕk'līnĕ) *a.* [L. *reclinare*, to lean.] Curved downwards from apex to base; *appl.* an ovule suspended from a funiculus.
- reclining** (rĕklī'nīng) *a.* [L. *reclinare*, to lean.] Leaning over; not perpendicular.
- recrudescence** (rĕkroodĕs'ĕns) *n.* [L. *re*, again; *crudescere*, to become violent.] State of breaking out into renewed activity; fresh growth from ripe part; a relapse.
- recruitment** (rĕkroot'mĕnt) *n.* [O.F. *recruter* from L. *recrescere*, to grow again.] Activation of additional motor neurones, causing increased reflex when stimulus of same intensity is continued; facilitation.
- rectal** (rĕk'tāl) *a.* [L. *rectus*, straight.] *Pert.* rectum; *appl.* gland: a small vascular sac of unknown significance near end of gut in fishes; *appl.* columns: longitudinal folds of mucous membrane of anal canal; anal columns, columns of Morgagni.
- rectigradation** (rĕk'tīgrādā'shŭn) *n.* [L. *rectus*, straight; *gradatio*, flight of steps.] Adaptive evolutionary tendency; a structure exhibiting an adaptive trend or sequence in evolution.
- rectinerved** (rĕk'tīnĕrvd) *a.* [L. *rectus*, straight; *nervus*, nerve.] With veins or nerves straight.
- rectipetality** (rĕk'tīpĕtāl'ītī) *n.* [L. *rectus*, straight; *petere*, to seek.] Tendency to rectilinear growth; autotropism, *q.v.*
- rectirostral** (rĕk'tīrōs'trāl) *a.* [L. *rectus*, straight; *rostrum*, beak.] Straight-beaked.
- rectiserial** (rĕk'tīsĕ'riāl) *a.* [L. *rectus*, straight; *series*, row.] Arranged in straight or vertical rows.
- rectivenous** (rĕk'tīvĕ'nūs) *a.* [L. *rectus*, straight; *vena*, vein.] With straight veins.
- rectogenital** (rĕk'tōjĕn'ītāl) *a.* [L. *rectus*, straight; *genitalia*, genitals.] *Pert.* rectum and genital organs.
- recto-uterine** (rĕk'tōū'tĕrīn) *a.* [L. *rectus*, straight; *uterus*, womb.] *Appl.* posterior ligaments of uterus.
- rectovesical** (rĕk'tōvĕs'īkāl) *a.* [L. *rectus*, straight; *vesica*, bladder.] *Pert.* rectum and bladder.
- rectrices** (rĕk'trīsĕz) *plu.* [L. *regere*, to rule.] The stiff tail feathers of a bird, used in steering. *Sing.* rectrix.
- rectricial** (rĕktrīs'īāl) *a.* [L. *regere*, to rule.] *Pert.* rectrices.
- rectum** (rĕk'tŭm) *n.* [L. *rectus*, straight.] The posterior terminal part of alimentary canal.
- rectus** (rĕk'tŭs) *n.* [L. *rectus*, straight.] A name for a rectilinear muscle, as rectus femoris, rectus abdominis, etc.
- recurrent** (rĕkŭr'ĕnt) *a.* [L. *re*, back; *currere*, to run.] Returning or re-ascending towards origin.
- recurrent sensibility**,—sensibility shown by motor roots of spinal cord due to sensory fibres of sensory roots.
- recurved** (rĕkŭrvd) *a.* [L. *recurvus*, bent back.] Bent backwards; recurvate, retrocurved.
- recurvirostral** (rĕkŭr'vīrōs'trāl) *a.* [L. *recurvus*, bent back; *rostrum*, beak.] With beak bent upwards.
- recutite** (rĕk'ūtīt) *a.* [L. *recutitus*, skinned.] Seemingly devoid of epidermis.
- red body**,—rete mirabile, *q.v.*
- red corpuscle**,—a coloured blood corpuscle of vertebrates, containing haemoglobin; erythrocyte.
- red glands**,—rete mirabile, *q.v.*
- red nucleus**,—collection of nerve cells in tegmentum of midbrain.
- redia** (rĕ'diā) *n.* [F. *Redi*, Italian scientist]. A larval stage of certain Trematoda.
- redintegration** (rĕd'īntĕgrā'shŭn) *n.* [L. *redintegrare*, to make whole again.] Restoration or regeneration of an injured or lost part.

redox (rēdōks) *a.* [*reduction-oxidation.*] *Pert.* mutual reduction and oxidation.

reduction (rēdūk'shūn) *n.* [*L. reductus*, reduced.] Halving of number of chromosomes at meiosis; structural and functional development less complex than that of ancestry, *opp.* amplification; decrease in size, as in old age; decreasing the oxygen content or increasing the proportion of hydrogen in a chemical compound.

reduplicate (rēdū'plikāt) *a.* [*L. re*, again; *duplicare*, to repeat.] *Appl.* aestivation in which margins of bud sepals or petals turn outwards at points of contact.

reduviid (rēdū'vīd) *a.* [*L. reduvia*, hangnail.] *Appl.* eggs of certain insects, protected by micropyle apparatus with porches.

reflected (rēflēk'tēd) *a.* [*L. reflectere*, to turn back.] Turned or folded back on itself.

reflector layer,—layer of cells on inner surface of photogenic tissue, as in fire-flies.

reflex (rē'flēks) *a.* [*L. reflectere*, to turn back.] Reflected; involuntary, *appl.* reaction to stimulus. *n.* Function of reflex arc or arcs, being unit reaction or reaction pattern.

reflex action,—simplest expression of principles according to which nervous system acts, involuntary action on activation of reflex arc.

reflex arc,—the unit mechanism of nervous system, consisting of organ whence reaction starts, nervous path, and gland cells or muscle cells; receptor, conductor, and effector.

reflex chain,—*see* chain behaviour.

reflexed (rēflēksd') *a.* [*L. reflectere*, to turn back.] Curved or turned backwards.

refracted (rēfrāk'tēd) *a.* [*L. re*, back; *frangere*, to break.] Bent backwards at an acute angle.

refractory (rēfrāk'tōrī) *a.* [*L. refractarius*, obstinate.] Unresponsive; *appl.* period after excitation during

which repetition of stimulus fails to induce a response.

regeneration (rējēn'ērā'shūn) *n.* [*L. re*, again; *generare*, to beget.] Renewal of a portion of body which has been injured or lost.

regma (rēg'mā) *n.* [*Gk. rhagma*, fracture.] A seed-vessel whose valves open by elastic movement.

regular (rēg'ulār) *a.* [*L. regula*, rule.] Radially symmetrical or actinomorphic; *appl.* flower.

Reil, island of,—*see* insula.

Reissner's membrane [*E. Reissner*, German physiologist]. The membrana vestibularis, stretching from lamina spiralis ossea to outer cochlear wall of ear.

rejuvenescence (rē'joovēnēs'ēns) *n.* [*L. re*, again; *juvenescere*, to grow young.] A renewal of youth; in cells, renewed life and vigour following on conjugation and interchange and fusion of nuclear and protoplasmic material; rejuvenation.

relational spiral,—plectonemic coiling round one another of two chromosomes or chromatids; orthospiral.

relaxation-time,—the period during which excitation subsides after removal of stimulus.

relaxin (rēlāk'sīn) *n.* [*L. relaxare*, to loosen.] A luteal hormone which produces relaxation of pelvic ligaments during pregnancy.

relay cell,—interneurone or internuncial cell, *q.v.*

relic spiral,—surviving coil of chromosome at telophase and prophase.

relict (rēl'ikt) *a.* [*L. relictus*, abandoned.] Not functional but originally adaptive, *appl.* structures; surviving in an area isolated from main distribution area, owing to intervention of environmental events, *e.g.* of glaciation; *appl.* species.

Remak's fibres [*R. Remak*, German anatomist]. Grey or gelatinous nerve fibres; amyelinate or non-medullated fibres.

Remak's plexus,—Meissner's plexus, *q.v.*

remex (rēm'ēks) *n.*, **remiges** (rēm'-ijēz) *plu.* [L. *remex*, rower.] The large feathers or quills of a bird's wing, comprising primaries and secondaries.

remiped (rēm'ipēd) *n.* [L. *remus*, oar; *pes*, foot.] Having feet adapted for rowing motion.

remotor (rēmō'tōr) *n.* [L. *remove*, to draw back.] A retractor muscle, *opp.* promotor.

renal (rē'nāl) *a.* [L. *ren*, kidney.] *Pert.* kidneys or renes; nephric.

renal columns,—cortical tissue between medullary pyramids of kidney; columns of Bertini.

renal portal,—*appl.* a system of circulation in which some returning blood passes through kidneys.

rendzina (rēj'nā) *n.* [Polish.] Any of a group of rich, dark greyish-brown, limey soils of humid or sub-humid grass-lands, having a brown upper layer and yellowish-grey lower layers.

renes (rē'nēz) *n. plu.* [L. *ren*, kidney.] Kidneys.

renette,—a glandular excretory cell in nematodes.

reniculus (rēnik'ulūs) *n.* [*Dim.* of L. *ren*, kidney.] Kidney lobe, comprising papillæ, pyramid, and surrounding part of cortex.

reniform (rēn'ifōrm) *a.* [L. *ren*, kidney; *forma*, shape.] Shaped like a kidney.

renin (rē'nīn) *n.* [L. *ren*, kidney.] A kidney protein, with vasopressor and diuretic effects.

reniportal,—*see* renal portal.

rennin (rēn'in) *n.* [A.S. *rennan*, to cause to run.] Milk-curdling enzyme of gastric juice, converts caseinogen into casein; also secreted by glandular hairs of insectivorous plants; chymosin.

renopericardial (rē'nōpērikār'diāl) *a.* [L. *ren*, kidney; Gk. *peri*, round; *kardia*, heart.] *Appl.* a ciliated canal connecting kidney and pericardium in higher molluscs.

repand (rēpānd') *a.* [L. *repandus*, bent backwards.] With undulated

margin; *appl.* leaf; wrinkled; *appl.* colony of bacteria.

repandodentate (rēpān'dōdēn'tāt) *a.* [L. *repandus*, bent backwards; *dens*, tooth.] Varying between undulated and toothed.

reparative (rēpār'ativ) *a.* [L. *reparare*, to mend.] Restoring; *appl.* buds developing after injury to leaf.

repeat (rēpēt') *n.* [L. *repetere*, to fetch back.] Duplication or further repetition of a chromosome segment owing to unequal crossing-over.

repent (rē'pēnt) *a.* [L. *repens*, crawling.] Creeping along the ground.

repletes (rēplēts') *n. plu.* [L. *repletus*, filled up.] Workers with distensible crops for storing and regurgitating honey-dew and nectar, and constituting a physiological caste of honey ants.

replicate (rēp'likāt) *a.* [L. *replicare*, to fold back.] Doubled over on itself.

replicatile (rēp'likātīl) *a.* [L. *replicare*, to fold back.] *Appl.* wings folded back on themselves when at rest.

replum (rēp'lūm) *n.* [L. *replum*, bolt.] The longitudinal division between valves of some pericarps; a placental dissepiment.

reproduction (rē'prōdūk'shūn) *n.* [L. *re*, again; *producere*, to lead forth.] Continuation of species or race, sexually or through cell-rupture, cell-division, budding, spore-formation, conjugation, or parthenogenesis.

reptiloid (rēp'tiloid) *a.* [L. *repere*, to crawl; Gk. *eidos*, form.] With characteristics of a reptile.

repugnatorial (rēpūg'nātō'riāl) *a.* [L. *repugnare*, to resist.] Defensive or offensive; *appl.* glands and other structures.

reservoir (rēz'ērvwâr) *n.* [F. from L. *reservare*, to keep back.] A non-contractile space discharging into gullet of Mastigophora.

residual air,—volume of air remaining in lungs after strongest possible breathing out.

residual meristem,—meristematic ring, *q.v.*

resilifer (rēzil'ifēr) *n.* [L. *resilire*, to leap back; *ferre*, to carry.] Projection of valve carrying the resilium; resiliophore.

resilient (rēzil'ifēr) *n.* [L. *resilire*, to leap back.] The horny flexible hinge of a bivalve.

resin (rēz'in) *n.* [L. *resina*, resin.] An acidic excretion product of certain plants, either as an amorphous vitreous solid, or, in solution in an essential oil, as a balsam.

resin canals,—ducts in bark, wood, mesophyll, etc., particularly of conifers, lined with glandular epithelium excreting essential oils, *e.g.* terpenes, forming oxidation products, such as resin.

respiration (rēs'pīrā'shūn) *n.* [L. *respiratio*, breathing.] Gaseous interchange between an organism and its surrounding medium.

respiratory enzymes,—enzymes involved in physiological oxidation-reduction processes, *e.g.*, oxidases, dehydrogenases, hydrases, peroxidases, catalases.

respiratory heart,—a name given to auricle and ventricle of right side of heart where there is no direct communication between right and left sides. *Opp.* systemic heart.

respiratory pigments,—pigments concerned with oxidation-reduction processes in living organisms, as haemoglobin, haemocyanin, chlorocruorin, etc., and catalysts, as cytochrome.

respiratory quotient,—the ratio between the volume of carbon dioxide produced and the volume of oxygen used.

restibrachium (rēstibrā'kīūm) *n.* [L. *restis*, rope; *brachium*, arm.] Restiform body or inferior peduncle of cerebellum.

restiform (rēs'tifōrm) *a.* [L. *restis*, rope; *forma*, shape.] Having appearance of a rope; *appl.* two bodies of nerve fibres on medulla oblongata, the inferior cerebellar peduncles.

restitution (rēs'titū'shūn) *n.* [L. *restitutio*, restoration.] The formation of a single body by union of separate pieces of tissue; the union of separated cells or blastomeres, or at chromosome breaks; regeneration; *appl.* nucleus resulting from failure of first meiotic division.

resupinate (rēsū'pīnāt) *a.* [L. *resupinare*, to bend back.] So twisted that parts are upside down.

resupination (rēsū'pīnā'shūn) *n.* [L. *resupinare*, to bend back.] Inversion.

rete (rē'tē) *n.* [L. *rete*, net.] A net or network; a plexus.

rete Malpighii,—Malpighian layer or deeper portion of epidermis, from stratum granulosum inwards; stratum germinativum.

rete mirabile,—network of blood-vessels, chiefly arterial, in wall of swim-bladder of fishes; and in certain mammals, also called red body, glands, spots, vasoganglion.

rete mucosum,—Malpighian layer.

reticulous (rētē'siūs) *a.* [L. *rete*, net.] In form of a network.

reteform,—retiform.

retentate (rētēn'tāt) *n.* [L. *retentare*, to hold back.] Any substance retained by a semipermeable membrane during dialysis. *Opp.* diffusate or dialysate.

retial (rē'tiāl, rē'shiāl) *a.* [L. *rete*, net.] *Pert.* a rete.

retiary (rē'shiāri) *a.* [L. *rete*, net.] Making, or having, a net-like structure; constructing a web; net-like, reticulous, retiform.

reticle (rēt'ikl) *n.* [L. *reticulum*, small net.] A reticulum; reticule.

reticular (rēt'ik'ulār) *a.* [L. *reticulum*, small net.] Having interstices like network; *pert.* a reticulum; *appl.* tissue.

reticular cells,—mesenchymal cells of bone-marrow, lymph glands, and spleen, giving rise to granulocytes, lymphocytes and monocytes.

reticulate (rēt'ik'ulāt) *a.* [L. *reticulatus*, latticed.] Like network; *appl.* nervation of leaf or insect wing; *appl.* thickening of cell-wall; *appl.*

- species formation due to intercrossing between several lines.
- reticulin** (rĕtik'ŭlin) *n.* [*L. reticulum*, small net.] A scleroprotein resembling collagen, occurring in fibres of reticular tissue.
- reticulocyte** (rĕtik'ŭlōsīt) *n.* [*L. reticulum*, small net; *kytos*, hollow.] An immature erythrocyte, of reticular appearance when stained; proerythrocyte.
- reticulo - endothelial** (rĕtik'ŭlōēn' dōthē'liāl) *a.* [*L. reticulum*, small net; Gk. *endon*, within; *thele*, nipple.] *Appl.* cells, or stationary histiocytes of various organs, and functioning as phagocytes in the production of antibodies, or in destroying erythrocytes; *appl. system*, or metabolic apparatus, consisting of reticulum and endothelial cells and of wandering histiocytes.
- reticulose** (rĕtik'ŭlōs) *a.* [*L. reticulum*, small net.] Of network formation.
- reticulospinal** (rĕtik'ŭlōspī'nāl) *a.* [*L. reticulum*, small net; *spina*, spine.] Connecting reticular formation of the brain with spinal cord; *appl.* nerve fibres.
- reticulum** (rĕtik'ŭlŭm) *n.* [*L. reticulum*, small net.] Delicate network of cell protoplasm; cross-fibres about base of petioles in palms; the honey-comb bag or second stomach of a ruminant; the framework of reticular tissue in many organs.
- reteform** (rĕ'tisfōrm) *a.* [*L. rete*, net; *forma*, shape.] In form of a network; also reteform.
- retina** (rĕt'īnā) *n.* [*L. rete*, net.] The inner, nervous membrane of eye which receives images.
- retinaculum** (rĕt'īnāk'ŭlŭm) *n.* [*L. retinaculum*, tether.] A small glandular mass to which an orchid pollinium adheres at dehiscence; a fibrous band which holds parts closely together; a minute hooked prominence holding egg-sac in position in cirripedes; a structure linking together fore and hind wings of some insects; appendages modified to hold furcula beneath abdomen in spring-tails. *Plu.* retinacula.
- retinaculum tendinum**,—annular ligament of wrist or ankle.
- retinal** (rĕt'īnāl) *a.* [*L. rete*, net.] *Pert.* the retina.
- retinella** (rĕtīnēl'ā) *n.* [*Dim.* of *L. rete*, net.] Neurofibrillar network of phaosome.
- retinene** (rĕt'īnēn) *n.* [*L. retina*, retina.] A carotenoid retinal pigment formed from visual yellow in dark-adapted eye; vitamin A aldehyde.
- retinerved** (rĕ'tīnĕrvd) *a.* [*L. rete*, net; *nervus*, sinew.] Having reticulate veins or nerves.
- retinoblasts** (rĕt'īnōblāsts) *n. plu.* [*L. rete*, net; Gk. *blastos*, bud.] Retinal epithelial cells which give rise to neuroblasts and spongioblasts.
- retinophore** (rĕt'īnōfōr) *n.* [*L. rete*, net; Gk. *pherein*, to bear.] A crystal cell in ommatidium of Arthropoda.
- retinula** (rĕtīn'ulā) *n.* [*L. rete*, net.] Group of elongated pigmented cells, innermost element of an ommatidium.
- retisolution** (rĕ'tisōlŭ'shŭn) *n.* [*L. rete*, net; *solutio*, solution.] Dissolution of the Golgi apparatus.
- retispersion** (rĕtisĕpĕr'shŭn) *n.* [*L. rete*, net; *dispersio*, dispersion.] Peripheral distribution of Golgi apparatus in a cell.
- retort-shaped organs**,—glandular tissue at proximal ends of maxillary stylets, in Hemiptera.
- retractile** (rĕtrāk'tīl) *a.* [*L. retractus*, withdrawn.] *Appl.* a part or organ that may be drawn inwards, as feelers, claws, etc.
- retractor** (rĕtrāk'tōr) *n.* [*L. retrahere*, to draw back.] A muscle which by contraction withdraws the part attached to it. *Opp.* protractor.
- retrahens** (rĕ'trāhēnz) *n.* [*L. retrahere*, to draw back.] A muscle which draws a part backwards, as the auricularis posterior.

- retal** (rĕt'al) *a.* [L. *retro*, backwards.] Backward; posterior.
- retrobulbar** (rĕt'rōbūl'bār) *a.* [L. *retro*, backwards; *bulbus*, bulb.] Posterior to eyeball.
- retrocaecal** (rĕt'rōsĕ'kāl) *a.* [L. *retro*, backwards; *caecus*, blind.] Behind caecum; *appl.* fossae.
- retrocerebral** (rĕt'rōsĕr'ĕbrāl) *a.* [L. *retro*, behind; *cerebrum*, brain.] Situated behind the cerebral ganglion; *appl.* glands in Rotifera.
- retrocurved** (rĕt'rōkūrvd') *a.* [L. *retro*, backwards; *curvus*, bent.] Bent backwards; recurved.
- retrofract** (rĕt'rōfrākt) *a.* [L. *retro*, backwards; *fractus*, broken.] Bent backwards at an angle.
- retrogression** (rĕt'rōgrĕsh'ūn) *n.* [L. *retrogressus*, going back.] A step from superior to inferior type in individual or race; degeneration.
- retrogressive** (rĕt'rōgrĕs'iv) *a.* [L. *retrogressus*, going back.] Degenerating; assuming characteristics of a lower type.
- retrolingual** (rĕt'rōling'gwāl) *a.* [L. *retro*, backwards; *lingua*, tongue.] Behind the tongue; *appl.* a gland.
- retromorphosis** (rĕt'rōmōr'fōsis) *n.* [L. *retro*, backwards; Gk. *morphe*, form.] Development with degenerating tendency.
- retroperitoneal** (rĕt'rōpĕr'itōnĕ'āl) *a.* [L. *retro*, backwards; Gk. *peri*, round; *teinein*, to stretch.] Behind peritoneum; *appl.* space between peritoneum and spinal column.
- retropharyngeal** (rĕt'rōfār'jĕāl) *a.* [L. *retro*, backwards; Gk. *pharynx*, pharynx.] Behind the pharynx; *appl.* a space, lymph glands.
- retropubic** (rĕt'rōpū'bĭk) *a.* [L. *retro*, backwards; *pubes*, mature.] *Appl.* a pad or mass of fatty tissue behind pubic symphysis.
- retrorse** (rĕtrōrs') *a.* [L. *retrorsum*, backwards.] Turned or directed backwards. *Opp.* antrorse.
- retroserrate** (rĕt'rōsĕr'āt) *a.* [L. *retro*, backwards; *serra*, saw.] Toothed, with teeth directed backwards; runcinate.
- retroserrulate** (rĕt'rōsĕr'ulāt) *a.* [L. *retro*, backwards; *serrula*, small saw.] With small retrorse teeth.
- retro-uterine** (rĕt'rōū'tĕrĭn) *a.* [L. *retro*, backwards; *uterus*, womb.] Behind the uterus.
- retroverse** (rĕt'rōvĕrs') *a.* [L. *retro-versus*, turned backwards.] Retrorse.
- retroversion** (rĕt'rōvĕr'shūn) *n.* [L. *retroversus*, turned backwards.] State of being reversed or turned backwards.
- retuse** (rĕtūs') *a.* [L. *retusus*, blunted.] Obtuse with a broad shallow notch in middle; *appl.* leaves, molluscan shells.
- revehent** (rĕv'ĕhĕnt) *a.* [L. *revehens*, carrying back.] In renal portal system, *appl.* vessels carrying blood back from excretory organs.
- reverse mutation**,—mutation of a mutant gene back to its original state; back mutation.
- reversed** (rĕvĕr'sd) *a.* [L. *reversus*, turned back.] Inverted; *appl.* a spiral shell whose turns are directed sinistrally; *appl.* barbs united to rachis by their apices.
- reversion** (rĕvĕr'shūn) *n.* [L. *reversio*, turning back.] Atavism; a return in a greater or less degree to some ancestral type; a return from cultivation or domestication to the wild state; a reverse mutation.
- reversionary** (rĕvĕr'shōnārĭ) *a.* [L. *reversio*, turning back.] *Appl.* atavistic characteristics.
- revert** (rĕvĕrt') *v.* [L. *revertēre*, to turn back.] To exhibit ancestral features; to hark back.
- revolute** (rĕv'ölūt) *a.* [L. *revolvere*, to roll back.] Rolled backwards from margin upon under surface, as some leaves.
- rhabdi**,—*plu.* of rhabdus.
- rhabdite** (rāb'dit) *n.* [Gk. *rhabdos*, rod.] One of short rod-like bodies in epidermal cells in Turbellaria and Temnocephaloidea; a gonapophysis.
- rhabditiform** (rābdīt'ifōrm) *a.* [Gk. *rhabdos*, rod; L. *forma*, shape.] *Appl.* larvae of roundworms with short straight oesophagus, with double bulb.

rhabditiis (rābdī'tīs) *n.* [Gk. *rhabdos*, rod.] Larva of certain nematodes.

rhabdocrepid (rāb'dōkrē'pīd) *a.* [Gk. *rhabdos*, rod; *krepis*, foundation.] *Appl.* a desma with uniaxial crepis, in sponge spicules.

rhabdoid (rāb'doid) *a.* [Gk. *rhabdos*, rod; *eidos*, form.] Rod-like. *n.* Any rod-shaped body.

rhabdolith (rāb'dōlīth) *n.* [Gk. *rhabdos*, rod; *lithos*, stone.] A calcareous rod found in some protozoa, strengthening the walls.

rhabdome (rāb'dōm) *n.* [Gk. *rhabdos*, rod.] A refractive rod composed of rhabdomeres enclosed by retinula cells of ommatidium.

rhabdomere (rāb'dōmēr) *n.* [Gk. *rhabdos*, rod; *meros*, part.] The refracting element in a retinula.

rhabdopod (rāb'dōpōd) *n.* [Gk. *rhabdos*, rod; *pous*, foot.] An element of clasper of some male insects.

rhabdosphere (rāb'dōsfēr) *n.* [Gk. *rhabdos*, rod; *sphaira*, globe.] Aggregated rhabdoliths found in deep-sea calcareous oozes.

rhabdus (rāb'dūs) *n.* [Gk. *rhabdos*, rod.] A rod-like spicule.

rhachi-,—rachi-.

Rhaetic (rē'tik) *a.* [L. *Rhaetia*, Grisons and Tirol.] *Appl.* fossils found in marls, shales, and limestone between Trias and Lias.

rhagiocrine (rā'jiōkrīn) *a.* [Gk. *rhax*, grape; *krinein*, to separate.] *Appl.* cells: histiocytes.

rhagon (rā'gōn) *n.* [Gk. *rhax*, grape.] A bun-shaped type of sponge with apical osculum and large gastral cavity.

ramphoid (rām'foid) *a.* [Gk. *ramphos*, beak; *eidos*, form.] Beak-shaped.

ramphotheca (rām'fōthē'kā) *n.* [Gk. *ramphos*, beak; *theke*, case.] The horny sheath of a bird's beak.

rheobase (rē'ōbās) *n.* [Gk. *rhein*, to flow; *basis*, ground.] The minimal or liminal electric stimulus that will produce a response; rheobasis.

rheogameon (rē'ōgāmē'ōn) *n.* [Gk. *rhein*, to flow; *gamos*, marriage;

on, being.] A polytypic species; rassenkreis.

rheoplankton (rē'ōplāngk'tōn) *n.* [Gk. *rhein*, to flow; *planktos*, wandering.] The plankton of running waters.

rheoreceptors (rē'ōrēsēp'tōrz) *n. plu.* [Gk. *rhein*, to flow; *L. recipere*, to receive.] Cutaneous sense organs of fishes and certain amphibians, receiving stimulus of water current, as pit organs, lateral line organs, ampullae of Lorenzini, vesicles of Savi.

rheotaxis (rē'ōtāk'sis) *n.* [Gk. *rhein*, to flow; *taxis*, arrangement.] Locomotor response to stimulus of a current, usually of water current.

rheotropic (rē'ōtrōp'ik) *a.* [Gk. *rhein*, to flow; *tropē*, turn.] Responding to current stimulus; rheotactic.

rheotropism (rēō'trōpīzm) *n.* [Gk. *rhein*, to flow; *tropē*, turn.] Curvature or growth response to influence of a water or air current.

rhesus factor,—Rh factor, antigen in blood of rhesus monkey and man, and agglutinated by an (rh) antibody in individuals lacking the factor, which is inherited as a Mendelian dominant.

rhexigenous (rēksij'ēnūs) *a.* [Gk. *rhexis*, a breaking; *-genes*, born.] Resulting from rupture or tearing; rhexogenous.

rhexilysis (rēksil'isis) *n.* [Gk. *rhexis*, a breaking; *lysis*, loosing.] The separation of parts, or production of openings or cavities, by rupture of tissues; rhexolysis.

rhexis (rēks'is) *n.* [Gk. *rhexis*, a breaking.] Fragmentation of chromosomes, caused by physical or chemical agents.

rhigosis (rīgō'sis) *n.* [Gk. *rhigos*, cold.] Sensation of cold.

rhinal (rī'nāl) *a.* [Gk. *rhīs*, nose.] Of or *pert.* the nose; *appl.* fissure separating rhinencephalon, or olfactory lobe and tract, and cerebral hemisphere.

rhinarium (rīnā'rīūm) *n.* [Gk. *rhīs*, nose.] The muzzle or external nasal

area of mammals; nostril area; part of nasus of some insects.

rhinencephalon (rī'nēnkēf'ālōn, -sēf-) *n.* [Gk. *rhis*, nose; *engkephalos*, brain.] The part of the fore-brain forming most of the hemispheres in fishes, amphibians and reptiles, and comprising in man the olfactory lobe, uncus, the supracallosal, subcallosal and dentate gyri, fornix, and hippocampus.

rhinion (rīn'īōn) *n.* [Gk. *rhis*, nose.] Most prominent point at which nasal bones touch.

rhinocaul (rī'nōkōl) *n.* [Gk. *rhis*, nose; *kaulos*, stalk.] Narrowed portion of brain which bears the olfactory lobe; olfactory peduncle.

rhinocoel (rī'nōsēl) *n.* [Gk. *rhis*, nose; *koilos*, hollow.] Cavity in olfactory lobe of brain.

rhinopharynx,—nasopharynx, *q.v.*

rhinophore (rī'nōfōr) *n.* [Gk. *rhis*, nose; *pherein*, to bear.] A process on aboral side of eye of certain molluscs, with supposed olfactory function.

rhinotheca (rī'nōthē'kā) *n.* [Gk. *rhis*, nose; *theke*, sheath.] The sheath of upper jaw of a bird.

rhipidate (rīp'idāt) *a.* [Gk. *rhīpis*, fan.] Fan-shaped; flabelliform.

rhipidium (rīpīd'itūm) *n.* [Gk. *rhīpis*, fan; *idion*, dim.] A fan-shaped cymose inflorescence; a fan-shaped colony of zooids.

rhpidoglossate (rīp'idōglōs'āt) *a.* [Gk. *rhīpis*, fan; *glossa*, tongue.] Having a radula with numerous teeth in a fan-like arrangement, as ear-shells.

rhpidostichous (rīp'idōs'tikūs) *a.* [Gk. *rhīpis*, fan; *stichos*, row.] *Appl.* fan-shaped fins.

rhizanthous (rīzānthūs) *a.* [Gk. *rhiza*, root; *anthos*, flower.] Producing a root, and a flower apparently straight from it.

rhizautoicous (rī'zōtoik'ūs) *a.* [Gk. *rhiza*, root; *autos*, self; *oikos*, house.] With antheridial and archegonial branches coherent.

rhizine (rī'zīn) *n.* [Gk. *rhiza*, root.] A rhizoid, as of most lichens.

rhizobia (rīzō'biā) *n. plu.* [G. *rhiza*,

root; *bios*, life.] Bacteria of root-nodules of leguminous plants. *Sing.* rhizobium.

rhizoblasts,—rhizoplasts.

rhizocaline (rī'zōkālēn') *n.* [Gk. *rhiza*, root; *kalein*, to summon.] A substance promoting root growth, present in pollen and leaves of some plants, also found in urine.

rhizocarp (rī'zōkârp) *n.* [Gk. *rhiza*, root; *karpos*, fruit.] A perennial herb.

rhizocarpous (rī'zōkâr'pūs) *a.* [Gk. *rhiza*, root; *karpos*, fruit.] Having perennial roots and annual stems.

rhizocaul (rī'zōkôl) *n.* [Gk. *rhiza*, root; *kaulos*, stem.] The root-like horizontal portion of a zoophyte; hydrorhiza.

rhizocorm (rī'zōkôrm) *n.* [Gk. *rhiza*, root; *kormos*, log.] An underground stem like a single-jointed rhizome, popularly a bulb.

rhizodermis (rīzōdēr'mis) *n.* [Gk. *rhiza*, root; *derma*, skin.] Outermost layer of root tissue; epiblema, piliferous layer.

rhizogenic (rī'zōjēn'ik) *a.* [Gk. *rhiza*, root; *genos*, descent.] Root-producing; arising from endodermic cells, not developed from pericycle; *pert.*, or stimulating, root formation.

rhizogenous,—rhizogenic.

rhizoid (rī'zoid) *n.* [Gk. *rhiza*, root; *eidos*, form.] A root-like outgrowth of thallus, *e.g.* of algae, liverworts, mosses, ferns; unicellular hairs on lower side of prothallus; a hypha functioning within a substrate. *a.* Rootlike; *appl.* form of bacterial colony.

rhizomatous (rīzō'mātūs) *a.* [Gk. *rhizoma*, root.] Like a rhizome; *appl.* mycelium within a substratum or host, *opp.* stoloniferous.

rhizome (rī'zōm) *n.* [Gk. *rhizoma*, root.] A thick horizontal stem partly along and partly under ground, sending out shoots above and roots below.

rhizomorph (rī'zōmōrf) *n.* [Gk. *rhiza*, root; *morphe*, form.] A root-like strand of hyphae in certain fungi.

rhizomorphoid (rī'zömôr'foïd) *a.* [Gk. *rhiza*, root; *morphe*, form; *eidōs*, particular kind.] Resembling a rhizomorph; branching like a root.

rhizomorphous (rī'zömôr'fūs) *a.* [Gk. *rhiza*, root; *morphe*, form.] In form of a root; root-like; rhizomorphic.

rhizomycelium (rī'zömisē'liūm) *n.* [Gk. *rhiza*, root; *mykes*, fungus.] A rhizoid mycelium connecting reproductive bodies in certain Phycomycetes.

rhizophagous (rīzōf'ägūs) *a.* [Gk. *rhiza*, root; *phagein*, to eat.] Root-eating.

rhizophore (rī'zōfōr) *n.* [Gk. *rhiza*, root; *pherein*, to bear.] A naked branch which grows down into soil and develops roots from apex, as in club-mosses.

rhizophorous (rīzōf'ōrūs) *a.* [Gk. *rhiza*, root; *pherein*, to bear.] Root-bearing.

rhizopin (rī'zōpīn) *n.* [*Rhizopus*, a genus of Mucoraceae.] A plant growth-promoting substance extracted from substrate of *Rhizopus* and probably identical with hetero-auxin.

rhizoplasts (rī'zōplāsts) *n. plu.* [Gk. *rhiza*, root; *plastōs*, moulded.] Fibrillae connecting parabasal body or blepharoplast and nucleus in Flagellata; intracytoplasmic portions of axonemes.

rhizopodium (rī'zōpō'diūm) *n.* [Gk. *rhiza*, root; *pous*, foot.] A branching and anastomosing filamentous pseudopodium.

rhizosphere (rī'zōsfēr) *n.* [Gk. *rhiza*, root; *sphaira*, ball.] The soil immediately surrounding the root system of a plant.

rhizotaxis (rī'zōtāk'sīs) *n.* [Gk. *rhiza*, root; *taxis*, arrangement.] Root arrangement.

rhodocyte,—erythrocyte,

rhodogenesis (rō'dōjēn'ēsīs) *n.* [Gk. *rhodon*, rose; *genesis*, origin.] Formation, or reconstitution after bleaching, of rhodopsin.

rhodophane (rō'dōfān) *n.* [Gk. *rho-*

don, rose; *phainein*, to appear.] A red chromophane in retinal cones of fishes and birds.

rhodophyll (rō'dōfil) *n.* [Gk. *rhodon*, rose; *phyllon*, leaf.] The red colouring matter of red algae.

rhodopin (rō'dōpīn) *n.* [Gk. *rhodon*, rose; *piein*, to absorb.] A carotenoid pigment of certain bacteria.

rhodoplast (rō'dōplāst) *n.* [Gk. *rhodon*, rose; *opsis*, sight.] A reddish plastid or chromatophore, in red algae.

rhodopsin (rōdōp'sīn) *n.* [Gk. *rhodon*, rose; *opsis*, sight.] A temporary reddish-purple pigment in retinal rods; visual purple.

rhodoxanthin (rō'dōzān'thīn) *n.* [Gk. *rhodon*, rose; *xanthos*, yellow.] A carotenoid pigment, found in aril of yew; $C_{40}H_{56}O_2$.

rhombencephalon (rōmb'ēnkēf'ālōn, -sēf-) *n.* [Gk. *rhombos*, rhomb; *engkephalos*, brain.] Hind-brain, consisting of the isthmus rhombencephali, metencephalon, and myelencephalon: the third primary vesicle.

rhombic (rōm'bīk) *a.* [Gk. *rhombos*, rhomb.] *Appl.* lip and grooves of brain at rhomboid fossa.

rhombocoele (rōm'bōsēl) *n.* [Gk. *rhombos*, rhombus; *kōilos*, hollow.] Dilatation of the central canal of the medulla spinalis near its posterior end, the terminal ventricle.

rhombogene (rōm'bōjēn) *n.* [Gk. *rhombos*, rhomb; *-genes*, producing.] Phase of parent form in life cycle of some Mesozoa, involving production of infusoriform embryos, or males. *Cf.* nematogene.

rhomboid (rōm'boid) *a.* [Gk. *rhombos*, rhombus; *eidōs*, form.] Rhombus-shaped; *appl.* fossa, sinus, ligament, scales.

rhomboideum,—the rhomboid or costoclavicular ligament.

rhomboideus, major and minor,—parallel muscles connecting scapula with thoracic vertebrae.

rhomboid - ovate,—between rhomboid and oval in shape.

rhopalium (röpāl'ium) *n.* [Gk. *rhopalon*, club.] A marginal sense organ of Discomedusae.

rhynchocoel (rīng'kösēl) *n.* [Gk. *rhynchchos*, snout; *koiolos*, hollow.] In Nemertea, tubular cavity with muscular walls serving to evert proboscis.

rhynchodaeum (rīng'kōdē'um) *n.* [Gk. *rhynchchos*, snout; *hodaïos*, *pert.* a way.] The precerebral region of a nemertine.

rhynchodont (rīng'kōdōnt) *a.* [Gk. *rhynchchos*, snout; *odous*, tooth.] With a toothed beak.

rhynchoporous (rīngkōf'ōrūs) *a.* [Gk. *rhynchchos*, beak; *pherein*, to bear.] Beaked.

rhynchostome (rīng'kōstōm) *n.* [Gk. *rhynchchos*, snout; *stoma*, mouth.] Anterior terminal pore through which proboscis is everted, in Nemertea.

rhythm (rīthm) *n.* [Gk. *rhythmos*, measured motion.] Regularity of movement, as seen in heart pulsation, or in movement of telegraph plant leaves; periodic occurrence; seasonal variation.

rhytidome (rit'idōm) *n.* [Gk. *rhytis*, wrinkle; *domos*, layer.] The outer bark.

rib (rīb) *n.* [A.S. *ribb*, rib.] A curved bone of thorax articulating with spine and either free at other end or connected with sternum; primary or central vein of a leaf; costa.

Ribaga's organ,—abdominal opening leading to Berlese's organ, *q.v.*

riboflavin (ribōflā'vīn) *n.* [L. *ribes*, currant; *flavus*, yellow.] Vitamin B₂ or growth factor G, important in oxidation processes; agon of yellow enzyme; lactoflavin; C₁₇H₂₀O₆N₄.

rectal (rik'tāl) *a.* [L. *rictus*, mouth aperture.] *Pert.* mouth gape of birds.

rigor (rīg'ōr) *n.* [L. *rigor*, stiffness.] The rigid state of plants when not sensitive to stimuli; contraction and loss of irritability of muscle on heating, due to coagulation of proteins.

rigor mortis,—stiffening of body after

death, due to myosin-formation, and lasting till commencement of decomposition.

rima (rī'mā) *n.* [L. *rima*, cleft.] A cleft or fissure, *e.g.* glottidis, palpe-larum, pudendi; orifice of mouth.

rimate (rī'māt) *a.* [L. *rima*, cleft.] Having fissures.

rimiform (rī'mifōrm) *a.* [L. *rima*, cleft; *forma*, shape.] In shape of a narrow fissure.

rimose (rī'mōs) *a.* [L. *rima*, cleft.] Having many clefts or fissures.

rimulose (rīm'ulōs) *a.* [L.L. *rimula*, small cleft.] Having many small clefts.

rind (rīnd) *n.* [A.S. *rinde*, bark.] The outer layer, tissue or cortex.

ring-bark,—bark of a tree where formations of phellogen are cylindrical; *cf.* scale-bark.

ring-canal,—a circular canal running close to and parallel with umbrella margin in Hydrozoa; circular vessel around gullet in Echinoidea.

ring cell,—a thick-walled cell of sporangium annulus of ferns.

ring centriole,—disc at end of body or middle portion of spermatozoon, perforated for axial filament; end ring, terminal disc.

ring-chromosomes,—chromosomes with no ends, in mitosis; chromosomes attached end to end, in meiosis.

ring gland,—glandular structure around aorta, with elements representing corpus allatum, corpus cardiacum, pericardial gland, and hypocerebral ganglion, secreting the metamorphosis-producing hormone in Diptera; Weismann's gland.

ring-porous,—*appl.* wood in which the vessels tend to be larger and have thinner walls than those in diffuse-porous wood.

ring-vessel,—a structure in head of cestodes, which unites the four longitudinal excretory trunks.

ringent (rīn'jēnt) *a.* [L. *ringi*, to open mouth.] Having lips, as of a corolla, or valves, separated by a distinct gap; with upper lip arched; gaping.

ringless,—*appl.* ferns without an annulus.

riparian (ripā'riān) *a.* [L. *ripa*, river bank.] Riparial, riparious; frequenting, growing on, or living on the banks of streams or rivers; *pert.* ripa or line of ependymal fold over a plexus or a tela.

risorius (rīśō'riūs) *n.* [L. *risus*, laughter.] A cheek muscle stretching from over masseter muscle to corner of mouth.

rivinian (rivīn'iān) *a.* [A. Q. *Rivinus*, German anatomist.] *Appl.* sublingual glands and ducts; *appl.* notch in ring of bone surrounding tympanic membrane.

rivose (rī'vōs) *a.* [L. *rivus*, stream.] Marked with irregularly winding furrows or channels.

rivulose (riv'ülōs) *a.* [L. *rivulus*, rivulet.] Marked with sinuate narrow lines or furrows.

rod-epithelium,—epithelium consisting of apparently striated cells.

rod fibre,—fibre with which a rod of retina is connected internally.

rod fructification,—fructification occurring in Basidiomycetes by means of rod-like gonidia from a hyphal branch.

rod granule,—nucleus of rod fibre.

rodent (rō'dēnt) *n.* [L. *rodere*, to gnaw.] An animal with a habit of gnawing or nibbling, as a rabbit.

roding (rō'dīng) *n.* [A.S. *rode*, raid.] Patrolling flight of birds defending territory.

rods and cones,—nerve-epithelium layer of retina.

rolandic (rōlān'dik) *a.* [L. *Rolando*, Italian anatomist]. *Appl.* fissure or central sulcus of cerebral hemispheres; *appl.* tubercle or tuberculum cinereum of posterior region of medulla oblongata, and gelatinous substance of dorsal horn of spinal medulla.

root (root) *n.* [A.S. *wyrt*, root.] Descending portion of plant, fixing it in soil, and absorbing moisture and nutrients; *radix*, *q.v.*; embedded part of hair, nail, tooth, or other

structure; pulmonary veins and artery, bronchus, and bronchial vessels joining lung to heart and trachea; pedicle of vertebra; efferent and afferent fibres of a spinal nerve, leaving or entering the spinal cord.

root-borer,—a larval form or insect which bores into roots of plants.

root-cap,—a protective cap of tissue at apex of root.

root-cell,—clear colourless base of an alga, attaching thallus to substratum.

root-climber,—a plant which climbs by roots developed from stem.

root-hairs,—unicellular epidermal outgrowths from roots, of protective and absorbent function.

rootlet,—an ultimate branch of a root.

root-nodules,—small swellings on roots of leguminous plants and containing nitrogen-fixing bacteria.

root-parasitism,—a condition exhibited by semi-parasitic plants, roots of which penetrate roots of neighbouring plants and draw from them elaborated food material.

root-pocket,—a sheath containing a root, especially of aquatic plants.

root-pressure,—the force by which water is made to rise in axial stele of a plant, a main factor in transport of water through plant.

root-process,—a branched structure fixing an algal thallus to substratum.

root-sheath,—a coleorrhiza; an orchid velamen; that part of a hair follicle continuous with epidermis.

root-stalk,—a root-stock or rhizome; root-like horizontal portion of Hydrozoa.

root-stock,—more or less erect underground part of stem; a rhizome, *q.v.*

root-tubercles,—root nodules, *q.v.*

root-tubers,—swollen roots of certain plants, as of *Ficaria*.

roridous (rō'ridūs) *a.* [L. *ros*, dew.] Like dew; covered with droplets.

rosaceous (rōzā'shūs) *a.* [L. *rosa*, rose.] With five petals arranged in a circle; resembling a rose.

rosellate (rōzē'lāt) *a.* [L. *rosa*, rose.] Arranged like rosettes; rosulate.

Rosenmüller's organ [*J. C. Rosenmüller*, German anatomist]. Epophoron, *q.v.*

rosette (rôzét') *n.* [F. from *L. rosa*, rose.] A cluster of leaves arising in close circles from a central axis; a group of cells between embryo and proembryonic remains, also arrangement of embryos, as in *Pinus*; a plant disease due to deficiency of boron or of zinc; a cluster of crystals, as in certain plant cells; a swirl or vortex of hair in pelage; a small cluster of blood cells; group of spiracular channels in exocuticle of some aquatic insects; a thin plate formed by coalescence of interradian basals of larval crinoid; a large ciliated funnel leading out of anterior sperm reservoir of earthworm; two circles of ciliated cells forming excretory organ in *Ctenophora*.

rosette organ,—in certain ascidians, ventral complex stolon from which buds are constricted off.

rostell (rôs'těl) *n.* [*L. rostellum*, *dim.* of *rostrum*, beak.] A rostellum.

rostellar (röstěl'är) *a.* [*L. rostellum*, small beak.] *Pert.* a rostellum.

rostellate (rôs'tělât) *a.* [*L. rostellum*, small beak.] Furnished with a rostellum.

rostelliform (röstěl'îfôrm) *a.* [*L. rostellum*, small beak; *forma*, shape.] Shaped like a small beak.

rostellum (röstěl'üm) *n.* [*L. rostellum*, small beak.] A small rostrum; projecting structure developed from a stigmatic surface of orchid flower; rounded prominence, furnished with hooks, on scolex of tape-worm; tubular mouth-parts of certain apterous insects; beaked-shaped process.

rostral (rôs'träl) *a.* [*L. rostrum*, beak.] *Pert.* a rostrum.

rostral gland,—premaxillary part of labial gland, as in snakes; labral gland of spiders.

rostrate (rôs'trât) *a.* [*L. rostrum*, beak.] Beaked.

rostriform (rôs'trifôrm), **rostroid** (rôs'troid) *a.* [*L. rostrum*, beak;

forma, shape; Gk. *eidos*, form.] Beak-shaped.

rostrulate (rôs'troolât) *a.* [*L. rostrulum*, small beak.] With, or like, a rostrulum.

rostrulum (rôs'troolüm) *n.* [*L. rostrulum*, small beak.] A small rostrum.

rostrum (rôs'trüm) *n.* [*L. rostrum*, beak.] Beak or beak-like process; process projecting between eyes of crayfish; a median ventral plate at base of capitulum of Cirripedia; labrum of spiders; prominence or mucro at posterior end of sepioid; anterior end of gregarine, which forms epimerite; pre-nasal region; anterior continuation of basisphenoid; backward prolongation of anterior end of corpus callosum.

rosular (rôz'ülär), **rosulate** (rôz'ülât) *a.* [*L. rosa*, rose.] Arranged in rosettes.

rot (rôt) *n.* [*A.S. rotian*, to rot.] Decay; decomposition; disease caused by fungi or bacteria; a parasitic disease causing emaciation.

rotate (rôtât) *a.* [*L. rota*, wheel.] Shaped like a wheel; rotiform.

rotation (rôtâ'shün) *n.* [*L. rota*, wheel.] Turning as on a pivot, as limbs; circulation, as of cell sap.

rotator (rôtâ'tör) *n.* [*L. rota*, wheel.] A muscle which allows of circular motion.

rotatores spinae,—paired muscles, one on either side of thoracic vertebrae, each arising from transverse process and inserted into vertebra next above.

rotiform (rôt'îfôrm) *a.* [*L. rota*, wheel; *forma*, shape.] Wheel-shaped; circular.

rotula (rôt'ülâ) *n.* [*L. rotula*, small wheel.] One of five radially-directed bars bounding circular aperture of oesophagus of a sea-urchin; patella or knee-cap.

rotular (rôt'ülär) *a.* [*L. rotula*, small wheel.] *Pert.* the rotula.

rotuliform (rôt'ülîfôrm) *a.* [*L. rotula*, small wheel; *forma*, shape.] Shaped like a small wheel.

rotundifolious (rōtūn'difō'līūs) *a.* [L. *rotundus*, round; *folium*, leaf.] With rounded leaves.

Rouget cells [*A. D. Rouget*, French physiologist]. Contractile branched cells external to walls of capillaries, associated with alteration of lumen; pericapillary cells; pericytes.

rouleaux (roolō', rool'ōz) *n. plu.* [F. *rouleau*, roll.] Formations like piles of coins into which red blood corpuscles tend to aggregate.

rubiginose (roobij'īnōs), **rubiginous** (roobij'īnūs) *a.* [L. *rubigo*, rust.] Of a brownish-red tint; rust-coloured; affected by rust parasites.

rubriblast (roob'riblāst) *n.* [L. *ruber*, red; Gk. *blastos*, bud.] Immature proerythrocyte; proerythroblast.

rubricyte (roob'risit) *n.* [L. *ruber*, red; Gk. *kytos*, hollow vessel.] A polychromatophil erythrocyte.

rubrospinal (roob'rōspi'nāl) *a.* [L. *ruber*, red; *spina*, spine.] *Appl.* descending tract or fasciculus of axons of red nucleus, in ventrolateral column of spinal cord.

ruderal (rood'ērāl) *n.* [L. *rudus*, debris.] Growing among rubbish or debris.

rudimentary (rood'īmēn'tāri) *a.* [L. *rudimentum*, first attempt.] In an imperfectly developed condition; at an early stage of development; arrested at an early stage; vestigial (certain authors).

ruff (rūf) *n.* [A.S. *ruh*, rough.] A neck fringe of hair or feathers.

Ruffini's organs [*A. Ruffini*, Italian anatomist]. Cylindrical end-bulbs containing interlaced branches of nerve endings, in subcutaneous tissue of finger; corpuscles of Ruffini.

rufine (roo'fēn) *n.* [L. *rufus*, reddish.] A red pigment in mucous glands of slugs.

rufinism (roo'fīnizm) *n.* [L. *rufus*, reddish.] Red pigmentation due to inhibition of formation of dark pigment.

ruga (roog'ā) *n.* [L. *ruga*, wrinkle.] A fold or wrinkle, as of skin, or of mucous membrane of certain organs.

rugate (roog'āt) *a.* [L. *rugare*, to wrinkle.] Wrinkled; ridged.

rugose,—with many wrinkles or ridges; rugous.

rugulose (roog'ūlōs) *a.* [L. *ruga*, wrinkle.] Finely wrinkled.

rumen (room'ēn) *n.* [L. *rumen*, cud.] The paunch or first cavity of ruminant's stomach.

ruminant (room'īnānt) *n.* [L. *ruminare*, to chew the cud.] An animal which returns and re-chews what has been swallowed.

ruminate (room'īnāt) *a.* [L. *ruminare*, to chew the cud.] Appearing as if chewed; *appl.* endosperm with infolding of testa or of perisperm, appearing mottled in section; *appl.* seeds having such endosperm, as betel-nut and nutmeg. *v.* To chew the cud.

rumination (room'īnāshūn) *n.* [L. *ruminatio*, chewing of cud.] The act of ruminant animals in returning food from first stomach to mouth in small quantities for thorough mastication and insalivation.

runcinate (rūn'sināt) *a.* [L. *runcina*, plane.] *Appl.* a pinnatifid leaf when divisions point towards base, as in dandelion.

runner (rūn'ēr) *n.* [A.S. *rinnan*, to run.] Slender prostrate stem which roots at nodes, as of strawberry; stolon.

rupestrine (roopēs'trīn), **rupicoline** (roopik'ōlīn), **rupicolous** (roopik'ōlūs) *a.* [L. *rupes*, rock; *colere*, to inhabit.] Growing or living on rocks.

ruptile (rūp'tīl) *a.* [L. *rumpere*, to break.] Bursting in an irregular manner.

rust (rūt) *n.* [A.S. *rust*, redness.] A disease of grasses and other plants caused by Uredinales; parasitic fungi which produce uredospores in summer, teleutospores in winter.

rut (rūt) *n.* [M.E. *rutien*, to rut.] Period of heat in male animals; *cf.* oestrus.

rutilism (root'īlizm) *n.* [L. *rutilus*, red.] Rufinism.

S

sabuline (săb'ulîn) *a.* [L. *sabulum*, sand.] Sandy; sabulose, sabulous; growing in coarse sand.

sac (săk) *n.* [L. *saccus*, sack.] A sack, bag, or pouch.

saccate (săk'ăt) *a.* [L. *saccus*, sack.] Pouched; *appl.* a calyx of which two lateral sepals are expanded into little sacs or pouches; gibbous.

saccharose (săk'ărös) *n.* [Gk. *sakchar*, sugar.] Cane sugar; sucrose.

sacciferous (săksif'ērüs) *a.* [L. *saccus*, sack; *ferre*, to bear.] Furnished with a sac.

sacciform (săk'siförm) *a.* [L. *saccus*, sack; *forma*, shape.] Like a sac or pouch; saccular.

sacculate (săk'ulăt) *a.* [L. *sacculus*, small bag.] Provided with sacculi.

sacculus (săk'ulüs) *n.* [L. *sacculus*, small bag.] A saccule or small sac; a peridium; lower part of vestibule of ear; appendix of laryngeal ventricle; lower portion of harpe.

saccus (săk'üs) *n.* [L. *saccus*, sack.] A sac-like structure, — as *saccus vasculosus*, *saccus endolymphaticus*; *saccus lacrimalis*; ninth abdominal sternite of certain male insects; median invagination of vinculum in Lepidoptera.

sacral (să'kräl) *a.* [L. *sacer*, sacred.] *Pert.* the sacrum.

sacral index, — one hundred times the breadth of sacrum at base, divided by anterior length.

sacral ribs, — elements of sacrum joining true sacral vertebrae to pelvis.

sacrocaudal (să'krökôd'äl) *a.* [L. *sacer*, sacred; *cauda*, tail.] *Pert.* sacrum and tail region.

sacrococcygeal (să'krököksij'ëäl) *a.* [L. *sacer*, sacred; Gk. *kokkys*, cuckoo.] *Pert.* sacrum and coccyx.

sacro-iliac (să'kröil'iäk) *a.* [L. *sacer*, sacred; *ilia*, flanks.] *Pert.* sacrum and ilium; *appl.* joint, ligaments.

sacrolumbar (să'krölüm'bär) *a.* [L. *sacer*, sacred; *lumbus*, loin.] *Pert.* sacral and lumbar regions.

sacrosplinal (să'kröspî'näl) *a.* [L. *sacer*, sacred; *spina*, spine.] *Pert.*

sacral region and spine; *appl.* muscle; erector spinae.

sacrovertebral (să'krövä'tëbräl) *a.* [L. *sacer*, sacred; *vertebra*, joint.] *Pert.* sacrum and vertebrae.

sacrum (să'krüm) *n.* [L. *sacer*, sacred.] The os sacrum or bone forming termination of vertebral column, usually of several fused vertebrae; vertebra or vertebrae to which pelvic girdle is attached.

sagitta (săjit'ă) *n.* [L. *sagitta*, arrow.] An elongated otolith in sacculus of teleosts; a genus of arrow-worms.

sagittae (săjit'ë) *n. plu.* [L. *sagitta*, arrow.] The inner genital valves in Hymenoptera.

sagittal (săjit'äl) *a.* [L. *sagitta*, arrow.] *Appl.* the suture between parietals; *appl.* section or division in median longitudinal plane.

sagittate (săjit'ât) *a.* [L. *sagitta*, arrow.] Shaped like head of an arrow; *appl.* leaf.

sagittocyst (săjit'ösist) *n.* [L. *sagitta*, arrow; Gk. *kystis*, bladder.] A cyst or capsule, in turbellarians, containing a single spindle.

saliva (săli'vă) *n.* [L. *saliva*, spittle.] A fluid containing ptyalin, secreted by buccal glands.

salivarium (săliivă'riüm) *n.* [L. *saliva*, spittle.] Recess of preoral food cavity, with opening of the salivary duct, in insects.

salivary (săli'ivări) *a.* [L. *saliva*, spittle.] *Pert.* saliva; *appl.* glands, ducts, etc.; *appl.* chromosomes conspicuous in salivary gland cells of Diptera; *appl.* amylase.

salivation (săli'ivă'shün) *n.* [L. *saliva*, spittle.] Flow of saliva into mouth.

salpingian (sălpîn'jiän) *a.* [Gk. *salpingx*, trumpet.] *Pert.* Eustachian or Fallopian tube.

salpingopalatine, — *pert.* Eustachian tubes and palate.

salpinx (săl'pîngks) *n.* [Gk. *salpingx*, trumpet.] Eustachian tube; Fallopian tube.

salsuginous (sălsū'jinūs) *a.* [L. *salugo*, saltiness.] Growing in soil impregnated with salts.

saltation,—mutation, *q.v.*

saltatorial (săltătō'riāl) *a.* [L. *saltare*, to leap.] Adapted for, or used in, leaping; *appl.* limbs of jumping insects; saltatory.

salted animals,—those which have survived certain diseases but remain infective and provide a source of material for preventive inoculation.

saltigrade (sălt'igrād) *a.* [L. *saltare*, to leap; *gradus*, step.] Moving by leaps, as some insects and spiders.

samara (sām'ārā) *n.* [L. *samara*, seed of elm.] A winged indehiscent fruit, as of elm, ash, maple.

samaroid (sām'āroid) *a.* [L. *samara*, seed of elm; Gk. *eidos*, form.] Samariform; resembling a samara.

sanguicolous (sānggwīk'ölūs) *a.* [L. *sanguis*, blood; *colere*, to inhabit.] Living in blood of animals.

sanguiferous (sānggwīf'ērūs) *a.* [L. *sanguis*, blood; *ferre*, to carry.] Conveying blood, as arteries, veins.

sanguimotor (sāng'gwīmō'tōr) *a.* [L. *sanguis*, blood; *moveo*, to move.] Pert. circulation of blood.

sanguivorous (sānggwīv'ōrūs) *a.* [L. *sanguis*, blood; *vorare*, to devour.] Living on blood.

sanidaster (săn'idās'tēr) *n.* [Gk. *sanidion*, panel; *aster*, star.] A slender rod-like spicule with spines at intervals.

Santorini's cartilages [*G. D. Santorini*, Italian anatomist]. The corniculate cartilages of the larynx.

Santorini's duct,—the accessory pancreatic duct.

Santorini's muscle,—risorius, *q.v.*

saphena (săfē'nā) *n.* [Gk. *saphenes*, clear.] A conspicuous vein of leg, extending from foot to femoral vein.

saphenous (săfē'nūs) *a.* [Gk. *saphenes*, clear.] Pert. internal or external saphena; *appl.* a branch of femoral nerve.

sap-hypha,—a laticiferous hypha.

saprobic (săprōb'īk) *a.* [Gk. *sapros*, rotten; *bios*, life.] Living on decaying organic matter; *appl.* certain Protista.

saprobiont (săprōb'īōnt) *n.* [Gk.

sapros, rotten; *bion*, living.] A saprophyte, or a saprozoite; a saprophagic organism.

saprogenic (săp'rōjēn'īk) *a.* [Gk. *sapros*, rotten; *-genes*, producing.] Causing decay; resulting from decay.

sapropelic (săp'rōpēl'īk) *a.* [Gk. *sapros*, rotten; *pelos*, mud.] Living among debris of bottom ooze.

saprophage (săp'rōfāj) *n.* [Gk. *sapros*, rotten; *phagein*, to eat.] An organism which feeds on decaying organic matter; a saprophagic organism; saprobiont.

saprophyte (săp'rōfit) *n.* [Gk. *sapros*, rotten; *phyton*, plant.] A plant which lives on dead and decaying organic matter; a saprophytic organism; cf. autophyte.

saprotrophic (săp'rōtrōf'īk) *a.* [Gk. *sapros*, rotten; *trophe*, nourishment.] Feeding on dead or decaying organic matter, *appl.* bacteria and fungi.

saprozoite (săp'rōzō'īk) *a.* [Gk. *sapros*, rotten; *zoon*, animal.] Living on dead or decaying organic matter, *appl.* animals.

saprozoite (săprōzō'īt) *n.* [Gk. *sapros*, rotten; *zoon*, animal.] An animal which lives on dead or decaying organic matter; a saprozoic organism.

sap - wood,—the more superficial, paler, softer wood of trees; alburnum.

sarcenchyma (sârsēng'kīmā) *n.* [Gk. *sarx*, flesh; *enchyma*, infusion.] Parenchyma whose ground-substance is granular and not abundant.

sarcinaeform (sârsī'nīfōrm) *a.* [L. *sarcina*, package; *forma*, shape.] Arranged in more or less cubical clumps; sarciniform; *appl.* cocci.

sarcocarp (sâr'kōkârp) *n.* [Gk. *sarx*, flesh; *karpōs*, fruit.] The fleshy or pulpy part of a fruit.

sarcocystin (sâr'kōsītīn) *n.* [Gk. *sarx*, flesh; *kystis*, bladder.] A toxin derived from Sarcosporidia.

sarcocyte (sâr'kōsīt) *n.* [Gk. *sarx*, flesh; *kutos*, hollow.] The middle layer of ectoplasm in Gregarina.

sarcode (sâr'kôd) *n.* [Gk. *sarx*, flesh.] The body protoplasm of Protista.

sarcoderm (sâr'kôdêrm) *n.* [Gk. *sarx*, flesh; *derma*, skin.] The fleshy layer between a seed and external covering.

sarcodic (sârkôd'ik) *a.* [Gk. *sarx*, flesh.] *Pert.* or resembling protoplasm.

sarcodictyum (sâr'kôdik'tîüm) *n.* [Gk. *sarx*, flesh; *diktyon*, net.] The second or network protoplasmic zone of Radiolaria.

sarcogenic (sâr'kôjên'ik) *a.* [Gk. *sarx*, flesh; *-genes*, producing.] Flesh-producing.

sarcoid (sâr'koid) *a.* [Gk. *sarx*, flesh; *eidos*, form.] Fleshy, as sponge tissue.

sarcolemma (sâr'kôlêm'ă) *n.* [Gk. *sarx*, flesh; *lemma*, skin.] The tubular sheath of a muscle fibre.

sarcolyte (sâr'kôlit) *n.* [Gk. *sarx*, flesh; *lyterios*, loosing.] A non-nucleated muscle fragment undergoing phagocytosis in development of insects; a transient striated cell in thymus; a myoid cell.

sarcoma (sârkô'mă) *n.* [Gk. *sarx*, flesh.] A fleshy excrescence or tumour, usually malignant.

sarcomatrix (sârkômă'triks) *n.* [Gk. *sarx*, flesh; *L. matrix*, womb.] The fourth protoplasmic zone of a radiolarian, the seat of digestion and assimilation.

sarcomere (sâr'kômêr) *n.* [Gk. *sarx*, flesh; *meros*, part.] A transverse portion of a sarcostyle, between telophragmata; incomma, comma.

sarcophagous (sârkôf'ăgûs) *a.* [Gk. *sarx*, flesh; *phagein*, to eat.] Subsisting on flesh.

sarcoplasm (sâr'kôplăzm) *n.* [Gk. *sarx*, flesh; *plasma*, mould.] The longitudinal interstitial substance between fibrils of muscular tissue.

sarcosoma (sâr'kôsô'mă) *n.* [Gk. *sarx*, flesh; *soma*, body.] The fleshy, *opp.* skeletal, portion of body.

sarcosomes,—mitochondria in muscle cells.

sarcosperm (sâr'kôspêrm) *n.* [Gk.

sarx, flesh; *sperma*, seed.] **Sarcoderm.**

sarcostyle (sâr'kôstil) *n.* [Gk. *sarx*, flesh; *stylos*, pillar.] A fibril or muscle column of muscular tissue; a dactylozoid column.

sarcotesta (sâr'kôtês'tă) *n.* [Gk. *sarx*, flesh; *L. testa*, shell.] Softer fleshy outer portion of a testa.

sarcotheca (sâr'kôthê'kă) *n.* [Gk. *sarx*, flesh; *theke*, box.] The sheath of a hydrozoan sarcostyle.

sarcous (sâr'kûs) *a.* [Gk. *sarx*, flesh.] *Pert.* flesh or muscle tissue.

sarcous disc,—anisotropic or A-disc in myofibrillae.

sarmentaceous (sârmëntă'shûs) *a.* [*L. sarmentum*, twig.] Having slender prostrate stems or runners; sarmentose, sarmentous.

sarmentum (sârmên'tûm) *n.* [*L. sarmentum*, twig.] The slender stem of a climber or runner.

sarothrum (sârô'thrûm) *n.* [Gk. *sarothron*, broom.] Enlarged hairy tarsal joint of bee, pollen-brush.

sartorius (sârtô'riûs) *n.* [*L. sartor*, tailor.] A thigh muscle which enables legs to be moved inwards.

satellite (săt'êlit) *n.* [*L. satellites*, attendant.] The second of any pair of individuals of a catenoid colony in pseudoconjugation of Gregarinida; *cf.* primate; a short segment constricted from the rest of a chromosome; *appl.* cells closely applied to others, as Schwann's sheath to medullary sheath; *appl.* a minute body adjacent to nucleolus and containing desoxyribonucleic acid, as in nerve cells.

saurian (sôr'iän) *a.* [Gk. *sauros*, lizard.] *Pert.* or resembling a lizard.

saurognathous (sôrôg'năthûs) *a.* [Gk. *sauros*, lizard; *gnathos*, jaw.] With a saurian arrangement of jaw-bones.

sauroid (sôr'oid) *a.* [Gk. *sauros*, lizard; *eidos*, form.] Resembling a saurian or part of a saurian; *appl.* cells: normoblasts, *q.v.*

savanna (sāvān'ā) *n.* [Sp. *sabana*.] Subtropical or tropical grassland with xerophilous vegetation and scattered trees; transitional zone between grasslands and tropical rain forests.

saxicavous (säksik'ävüs) *a.* [L. *saxum*, rock; *cavus*, hollow.] *Appl.* rock-borers, as some molluscs; lithophagous.

saxicoline (säksik'ölīn) *a.* [L. *saxum*, rock; *colere*, to inhabit.] Living or growing among rocks; saxicolous.

scaberulous (skäbēr'ülūs) *a.* [L. *scaber*, rough.] Somewhat rough.

scabrate (skäb'rāt) *a.* [L. *scaber*, rough.] Rough with a covering of stiff hairs, scales, or points; scabrous.

scala (skā'lā) *n.* [L. *scala*, ladder.] Any of three canals in cochlea of ear.

scalariform (skālā'rīfōrm) *a.* [L. *scala*, ladder; *forma*, shape.] Ladder-shaped; *appl.* vessels or tissues having bars like a ladder; *appl.* series of pits in cell-walls; *appl.* conjugation between parallel filaments, as in *Spyrogyra*.

scale (skāl) *n.* [A.S. *sceala*, shell, husk.] A flat, small, plate-like external structure, dermal or epidermal; a bony, horny, or chitinous outgrowth; bract of a catkin; ligule of certain flowers; modification of a stellate hair on certain leaves.

scale-bark,—bark in irregular sheets or patches, due to irregular or dipping formation of phellogen; *cf.* ring-bark.

scale leaf,—a bud-protecting cataphyllary leaf.

scalene (skälēn') *a.* [Gk. *skalenos*, uneven.] *Pert.* scalene muscles; *appl.* tubercle on first rib, for attachment of scalenus anticus or anterior.

scalenus (skälē'nūs) *n.* [Gk. *skalenos*, uneven.] One of three neck muscles—scalenus posticus, medius, anticus.

scaliform (skālīfōrm) *a.* [L. *scala*, ladder; *forma*, shape.] Ladder-shaped; scalariform, *q.v.*

scalp (skālp) *n.* [M.E. *scalp*.] The skin and subcutaneous tissues of surface of head where hair grows.

scalpella (skālpēl'ā) *n. plu.* [L. *scalpellum*, small knife.] Paired pointed processes, parts of maxillae of Diptera.

scalpriform (skāl'prīfōrm) *a.* [L. *scalprum*, chisel; *forma*, shape.] Chisel-shaped; *appl.* incisors of rodents.

scalprum (skāl'prūm) *n.* [L. *scalprum*, chisel.] The cutting edge of an incisor.

scandent (skän'dēnt) *a.* [L. *scandere*, to climb.] Climbing by stem-roots or tendrils; trailing, as grasses over shrubs.

scansorial (skänsō'riāl) *a.* [L. *scandere*, to climb.] Formed or adapted for climbing; habitually climbing.

scape (skāp) *n.* [Gk. *skapos*, stalk.] A flower-stalk arising at or under ground; a radical peduncle, as cowslip; a structure formed by two basal segments of antennae of Diptera; an epigynal structure protecting vulva in spiders; scapus, *q.v.*

scapha (skāf'ā) *n.* [L. *scapha*, boat.] Narrow curved groove between helix and antihelix of ear.

scaphium (skāf'ium) *n.* [Gk. *skaphe*, boat.] Process of ninth (copulatory) segment of male Lepidoptera; anterior Weberian ossicle; keel of leguminous flower.

scaphocephalic (skāf'ökēfāl'ik, -sēf-) *a.* [Gk. *skaphe*, boat; *kephale*, head.] With narrow, elongated skull.

scaphocerite (skāf'ösērīt) *n.* [Gk. *skaphe*, boat; *keras*, horn.] Scale-like exopodite of second antenna of Decapoda.

scaphognathite (skāfōgnāth'īt) *n.* [Gk. *skaphe*, boat; *gnathos*, jaw.] Epipodite of second maxilla of Decapoda, regulating flow of water through respiratory chamber; baler.

scaphoid (skāf'oid) *a.* [Gk. *skaphe*, boat; *eidōs*, form.] Shaped like a boat; *appl.* carpal and tarsal bones; *appl.* fossa above pterygoid fossa. *n.* Os naviculare.

scapholunar (skāf'ölū'nār, -loo'-) *a.*

[Gk. *skaphe*, boat; L. *luna*, moon.]

Pert. scaphoid and lunar carpal bones, or those bones fused; scapholunatum.

scapiform (skā'pifōrm) *a.* [Gk.

skapos, stalk; L. *forma*, shape.]

Scapoid; resembling a scape.

scapose (skā'pōs) *a.* [Gk. *skapos*,

stalk.] Consisting of, or in form of, a scape.

scapula (skāp'ulā) *n.* [L. *scapula*,

shoulder-blade.] The shoulder-

blade; name given to various

structures suggestive of a shoulder-

blade, as tegula, patagium, meso-

thoracic pleuron, fore-leg trochanter

of certain insects; in Crinoidea,

proximal plate of ray that has an

articular facet for arms.

scapular (skāp'ulār) *a.* [L. *scapula*,

shoulder-blade.] *Pert.* scapula. *n.*

A feather growing from shoulder

and lying laterally along back.

scapulus (skāp'ulūs) *n.* [L. *dim.* of

scapus, stem.] Modified sub-marginal

region in certain sea-anemones.

scapus (skā'pūs) *n.* [L. *scapus*, stem,

stalk.] A scape; stem of feather;

hair shaft; part of column below,

and including, parapet in sea-

anemones.

scarabaeiform (skār'ābē'ifōrm) *a.*

[L. *Scarabacus*, a genus of beetles;

forma, form.] *Appl.* a C-shaped

larval type of certain beetles.

scarfskin (skārf'skīn) *n.* [A.S.

sceorfa, scurf.] The cuticle or

epidermis.

scarious (skā'rīūs) *a.* [F. *scarieux*,

membranous.] Thin, dry, mem-

branous; scaly or scurfy.

schindylesis (skīn'dilē'sīs) *n.* [Gk.

schindylesis, fissure.] Articulation

in which a thin plate of bone fits

into a cleft or fissure, as that

between vomer and palatines.

schistocytes (skīs'tōsīts) *n. plu.* [Gk.

schizein, to cleave; *kytos*, hollow.]

Fragments of erythrocytes; blood

corpuscles undergoing fragmenta-

tion; microcytes; poikilocytes.

schizocarp (skiz'ōkārp) *n.* [Gk.

schizein, to cleave; *karpos*, fruit.]

A dry seed-vessel which splits into

two or more one-seeded car-

pels or mericarps.

schizocarpic,—*appl.* dry fruits which

split into two or more mericarps, as

carcerulus, cremocarp, lomentum,

regma, compound samara.

schizochroal (skiz'ōkrō'āl) *a.* [Gk.

schizein, to cleave; *chros*, body-

surface.] With lenses separate and

cornea not continuous; *appl.* cer-

tain trilobite eyes.

schizocoel (skiz'ōsēl) *n.* [Gk. *schiz-*

ein, to cleave; *koiolos*, hollow.]

Coelem formed by splitting of

mesoblast into layers.

schizogamy (skizōg'āmī) *n.* [Gk.

schizein, to cleave; *gamos*, marri-

age.] Fission into a sexual and

a non-sexual zooid in some Poly-

chaeta.

schizogenesis (skiz'ōjēn'ēsīs) *n.* [Gk.

schizein, to cleave; *genesis*, des-

cent.] Reproduction by fission.

schizogenetic (skiz'ōjēnēt'ik) *a.* [Gk.

schizein, to cleave; *genesis*, des-

cent.] Reproducing or formed by

fission; *appl.* resin ducts; *appl.*

spaces formed by delamination

of adjacent cell-walls; schizo-

genous.

schizognathous (skizōg'nāthūs) *a.*

[Gk. *schizein*, to cleave; *gnathos*,

jaw.] Having vomer small and

pointed in front and maxillo-

palatines not united with each other

and vomer; *appl.* a type of palate

found in some Carinatae, *e.g.* in

pigeon.

schizogony (skizōg'ōnī) *n.* [Gk.

schizein, to cleave; *gonos*, off-

spring.] Cleavage multiplication

in protozoa.

schizokinete (skiz'ōkinēt') *n.* [Gk.

schizein, to cleave; *kinetos*, mov-

able.] Motile vermicle stage in

life-history of Haemosporidia.

schizolysigenous (skizōlīsij'ēnūs) *a.*

[Gk. *schizein*, to cleave; *lysis*,

loosing; *gennaen*, to produce.]

Formed schizogenously and en-

larged lysigenously, *appl.* glands,

cavities, as in pericarp of Citrus.

schizolysis (skizöl'ísís) *n.* [Gk. *schizein*, to cleave; *lysis*, loosing.] Fragmentation; disjunction at septa, as of hyphae.

schizont (skízönt') *n.* [Gk. *schizein*, to cleave; *onta*, beings.] A stage following trophozoite stage of parasitic Sporozoa, reproducing in host by multiple fission.

schizontoblast (skizön'töbläst) *n.* [Gk. *schizein*, to cleave; *onta*, beings; *blastos*, bud.] A cytomere of Caryotropha.

schizontocytes (skizön'tösíts) *n. plu.* [Gk. *schizein*, to cleave; *on*, being; *kytos*, hollow.] Cytomeres into which a schizont divides, and which themselves divide into clusters of merozoites.

schizopelמוש (skiz'öpél'mūs) *a.* [Gk. *schizein*, to cleave; *pelma*, sole of foot.] With two separate flexor tendons connected with toes, as some birds.

schizophyte (skiz'öfit) *n.* [Gk. *schizein*, to cleave; *phyton*, plant.] A plant which reproduces solely by fission, as bacteria, yeasts, blue-green algae.

schizopod stage,—that stage in development of a decapod crustacean larva when it resembles an adult Mysis in having exopodite and endopodite to all thoracic limbs.

schizorhinal (skiz'örínāl) *a.* [Gk. *schizein*, to cleave; *rhis*, nose.] Having external narial opening elongated, and posterior border angular or slit-like; *opp.* holorhinal.

schizostele (skiz'östē'lē) *n.* [Gk. *schizein*, to cleave; *stele*, post.] One of a number of strands formed by division of plerome of stem.

schizostely (skiz'östē'li) *n.* [Gk. *schizein*, to cleave; *stele*, a post.] Condition of stem in which plerome gives rise to a number of strands, each composed of one vascular bundle; *astely*.

schizothecal (skiz'öthē'kāl) *a.* [Gk. *schizein*, to cleave; *theke*, case.] Having scale-like horny tarsal plates.

schizozoite (skiz'özō'it) *n.* [Gk.

schizein, to cleave; *zoon*, animal.] A merozoite formed from each segment of a dividing schizont.

Schlemm, canal of [*F. S. Schlemm*, German anatomist]. Sinus venosus sclerae, circular canal near sclerocorneal junction and joining with anterior chamber of eye and anterior ciliary veins.

Schwann's sheath [*Th. Schwann*, German anatomist]. Primitive sheath or neurolemma, *q.v.*

sciaphyte,—skiaphyte, *q.v.*

sciatic (siät'ík) *a.* [Gk. *ischion*, hip-joint.] *Pert.* hip region; *appl.* artery, nerve, veins, etc.

scion (sí'ön) *n.* [*F. scion*, shoot.] A branch or shoot for grafting purposes; *cion* (U.S.A.).

sciophilous,—skiophilous, *q.v.*

sciophyll,—skiophyll, *q.v.*

scissile (sis'íl) *a.* [*L. scissilis*, cleavable] Cleavable; splitting, as into layers.

scissiparity (sis'ípär'ití) *n.* [*L. scissio*, cleaving; *parere*, to beget.] Schizogenesis.

sclera (sklē'rā) *n.* [Gk. *skleros*, hard.] The tough, opaque, fibrous tunic of the eyeball; sclerotic coat, sclerotica.

scleratogenous layer,—strand of the fused sclerotomes formed along the neural tube, later surrounding the notochord.

sclere (sklēr) *n.* [Gk. *skleros*, hard.] A small skeletal structure; sponge spicule.

sclereid (sklē'rēid) *n.* [Gk. *skleros*, hard; *eidos*, form.] Any cell with a thick lignified wall; a sclerenchymatous cell; a stone cell.

sclerenchyma (sklē'rēng'kimā) *n.* [Gk. *skleros*, hard; *engchyma*, infusion.] Hard tissue of coral; plant tissue of thickened and of hard cells of vessels.

sclerid,—sclereid.

sclerins,—scleroproteins, *q.v.*

sclerite (sklē'rit) *n.* [Gk. *skleros*, hard.] Calcareous plate or spicule; chitinous plate; part of exoskeleton.

sclerobase (sklē'rōbās) *n.* [Gk. *skleros*, hard; *basis*, base.] The calcareous axis of Alcyonaria.

sclerobasidium (sklē'rōbāsīd'īūm) *n.* [Gk. *skleros*, hard; *basis*, base; *idion*, *dim.*] A thick-walled resting body or encysted probasidium of rust and smut fungi; hypnobasidium.

scleroblast (sklē'rōblāst) *n.* [Gk. *skleros*, hard; *blastos*, bud.] A sponge cell from which a sclere develops; an immature sclereid.

scleroblastema (sklē'rōblāst'ēmā) *n.* [Gk. *skleros*, hard; *blastema*, bud.] Embryonic tissue involved in development of skeleton.

scleroblastic (sklē'rōblās'tik) *a.* [Gk. *skleros*, hard; *blastos*, bud.] *Appl.* skeletal-forming tissue.

sclerocarp (sklē'rōkārp) *n.* [Gk. *skleros*, hard; *karpōs*, fruit.] The hard seed coat or stone, usually the endocarp, of succulent fruit.

sclerocauly (sklē'rōkōl'ī) *n.* [Gk. *skleros*, hard; *kaulos*, stalk.] Condition of excessive skeletal structure in a stem.

sclerocorneal (sklē'rōkōr'nēāl) *a.* [Gk. *skleros*, hard; *L. cornea*, cornea.] *Pert.* cornea and sclera.

scleroderm (sklē'rōdērm) *n.* [Gk. *skleros*, hard; *derma*, skin.] An indurating integument; skeletal part of corals.

sclerodermatous (sklē'rōdēr'mātūs) *a.* [Gk. *skleros*, hard; *derma*, skin.] With an external skeletal structure.

sclerodermite (sklē'rōdēr'mīt) *n.* [Gk. *skleros*, hard; *derma*, skin.] The hard outer covering of an arthropod segment.

sclerogen (sklē'rōjēn) *n.* [Gk. *skleros*, hard; *-genes*, producing.] Woody tissue in plant cells.

sclerogenic (sklē'rōjēn'ik), **sclerogenous** (sklē'rōj'ēnūs) *a.* [Gk. *skleros*, hard; *-genes*, producing.] Producing lignin.

scleroid (sklē'rōid) *a.* [Gk. *skleros*, hard; *eidos*, form.] Hard; skeletal.

scleromeninx (sklē'rōmē'nīngks) *n.* [Gk. *skleros*, hard; *meninx*, membrane.] The dura mater.

sclerophyll (sklē'rōfīl) *n.* [Gk. *skleros*, hard; *phyllon*, leaf.] A

plant with hard leaves; a sclerophyllous plant.

sclerophyllous (sklē'rōfīl'ūs) *a.* [Gk. *skleros*, hard; *phyllon*, leaf.] *Appl.* leaves resistant to drought through having much sclerenchymatous tissue and reduced intercellular spaces; hard-leaved.

sclerophylly (sklē'rōfīl'ī) *n.* [Gk. *skleros*, hard; *phyllon*, leaf.] Condition of excessive skeletal structure in leaves.

scleroproteins (sklē'rōprō'tēinz) *n. plu.* [Gk. *skleros*, hard; *proteion*, first.] Albuminoids; group of proteins occurring in connective, skeletal and epidermal tissues, as ossein, collagen, gelatin, chondrin, elastin, keratin, etc.

scleroseptum (sklē'rōsēp'tūm) *n.* [Gk. *skleros*, hard; *L. septum*, division.] A radial vertical wall of calcium carbonate in madreporal corals.

sclerosis (sklē'rō'sīs) *n.* [Gk. *skleros*, hard.] Hardening by increase of connective tissue or of lignin.

sclerotical (sklē'rō'tāl) *a.* [Gk. *skleros*, hard.] Sclerotic.

sclerotesta (sklē'rōtēs'tā) *n.* [Gk. *skleros*, hard; *L. testa*, shell.] The hard lignified inner layer of a testa.

sclerotic (sklē'rōt'ik) *n.* [Gk. *skleros*, hard.] The sclera. *a.* Indurated; containing lignin; *pert.* sclerosis; *pert.* sclera.

sclerotic ossicles, — ring of small bones round sclera of birds.

sclerotica, — sclera.

sclerotoid (sklē'rōt'ōid) *a.* [Gk. *skleros*, hard; *eidos*, form.] Like, or *pert.* a sclerotium.

sclerotium (sklē'rō'tīūm, -shīūm) *n.* [Gk. *skleros*, hard.] Resting, dormant, or winter stage of some fungi when they become a mass of hardened mycelium or of waxy protoplasm.

sclerotome (sklē'rōtōm) *n.* [Gk. *skleros*, hard; *tome*, cutting.] A partition of connective tissue between two myomeres; mesenchymatous tissue destined to form a vertebra.

sclerous (sklē'rūs) *a.* [Gk. *skleros*, hard.] Sclerotal; scleroid.

scobculate (skōbīk'ūlāt) *a.* [*Dim.* of *L. scobis*, sawdust.] Granulated; scobicular.

scobiform (skōb'īfōrm) *a.* [*L. scobis*, sawdust; *forma*, shape.] Resembling sawdust.

scobina (skōbī'nā) *n.* [*L. scobina*, file.] Pedicel of a spikelet of grasses.

scobinate (skōbī'nāt) *a.* [*L. scobina*, file.] Having a rasp-like surface.

scolecoid (skōlē's'īd) *a.* [Gk. *skolex*, worm.] *Pert.* a scolex; scolecoïd.

scoleciform (skōlē's'īfōrm) *a.* [Gk. *skolex*, worm; *L. forma*, shape.] Like a scolex, scolecoïd.

scolecite (skōlē'sīt) *n.* [Gk. *skolex*, worm.] Vermiform body branching from mycelium of Discomycetes; Woronin hypha.

scolecospore (skōlē'kōspōr) *n.* [Gk. *skolex*, worm; *sporos*, seed.] A worm-like or thread-like spore.

scolex (skōlēks) *n.* [Gk. *skolex*, worm.] The head or anterior end of a tape-worm.

scolite (skō'līt) *n.* [Gk. *skolex*, worm; *lithos*, stone.] A fossil worm burrow.

scolopale (skō'lōpālē) *n.* [Gk. *skolos*, stake; *pale*, struggle.] Vibratile central peg-like portion of a scolophore.

scolophore (skō'lōfōr) *n.* [Gk. *skolos*, stake; *pherein*, to bear.] Chordotonal sensilla or nerve end organ of auditory apparatus of insects.

scolopidium (skōlōpīd'ium) *n.* [Gk. *skolops*, stake; *idion*, *dim.*] A chordotonal sensilla in insects.

scolus (skō'lūs) *n.* [Gk. *skolos*, thorn.] A thorny process of some insect larvae.

scopa (skō'pā) *n.* [*L. scopa*, brush.] A pollen-brush of bees.

scopate (skō'pāt) *a.* [*L. scopa*, brush.] Having a tuft of hairs like a brush; scopiferous.

scopiform (skō'pīfōrm) *a.* [*L. scopa*, brush; *forma*, shape.] Brush-like.

scopula (skōp'ūlā) *n.* [*L. scopula*, small brush.] A small tuft of

hairs; brush-like adhesive organ formed by cilia in certain peritrichous ciliates; a needle-like sponge spicule with brush-like head; in climbing spiders an adhesive tuft of club-like hairs on each foot, replacing third claw.

scopulate (skōp'ūlāt) *a.* [*L. scopula*, small brush.] Like a brush.

scopuliferous (skōp'ūlif'ērūs) *a.* [*L. scopula*, small brush; *ferre*, to carry.] Having a small brush-like structure.

scopuliform (skōp'ūlifōrm) *a.* [*L. scopula*, small brush; *forma*, shape.] Resembling a small brush.

scorpioid (skōr'pīoid) *a.* [Gk. *skorpīos*, scorpion; *eidos*, form.] Circinate, *appl.* inflorescence; resembling a scorpion.

scorpioid cyme,—a uniparous cymose inflorescence in which daughter-axes are developed right and left alternately.

scorteal (skōr'tēāl) *a.* [*L. scorteus*, leathern.] *Appl.* or *pert.* a tough cortex, as of certain fungi.

scotoma (skōtō'ma) *n.* [Gk. *skotos*, darkness.] A spot where vision is absent within the visual field; blind spot.

scotopia (skōtō'pīā) *n.* [Gk. *skotos*, darkness; *ops*, eye.] Adaptation of the eye to darkness, *opp.* photopia.

scotopic (skōtōp'īk) *a.* [Gk. *skotos*, darkness; *ops*, eye.] Having or *pert.* dark-adapted eye; *opp.* photopic.

scotopsin (skōtōp'sīn) *n.* [Gk. *skotos*, darkness; *opsis*, sight.] The protein component of rhodopsin or visual purple.

scrobe (skrōb) *n.* [*L. scrobis*, ditch.] A groove on either side of beetle rostrum.

scrobicula (skrōbīk'ūlā) *n.* [*L.L. dim.* of *scrobis*, ditch.] The smooth area round boss of echinoid test.

scrobicular (skrōbīk'ūlār) *a.* [*L.L. dim.* of *scrobis*, ditch.] In region of scrobicula.

scrobiculate (skrōbīk'ūlāt) *a.* [*L.L. dim.* of *scrobis*, ditch.] Marked with little pits or depressions.

scrobicule,—scrobicula, or scrobiculus.

scrobiculus (skrōbik'ūlūs) *n.* [L.L. *dim.* of *scrobis*, ditch.] A pit or depression.

scrobiculus cordis,—pit of stomach.

scrotal (skrō'tāl) *a.* [L. *scrotum*.] *Pert.* or in region of scrotum.

scrotum (skrō'tūm) *n.* [L. *scrotum*.] External sac or sacs containing testicles, in mammals; covering of testis in insects.

scurf (skūrf) *n.* [A.S. *scurf*.] Scaly skin; dried outer skin peeling off in scales; scaly epidermal covering of some leaves.

scuta, —*plu.* of scutum, *q.v.*

scutal (skū'tāl) *a.* [L. *scutum*, shield.] *Pert.* a scutum.

scutate (skū'tāt) *a.* [L. *scutum*, shield.] Protected by large scales or horny plates.

scute (skūt) *n.* [L. *scutum*, shield.] An external scale, as of reptile, fish, or scaly insect; a scale-like structure; bony plate separating sinuses of mastoid bone from tympanic cavity.

scutella (skūtē'lā) *n.* [L. *scutellum*, small shield.] A scutellum or shield-like structure; *plu.* of scutellum.

scutellar (skū'tēlār) *a.* [L. *scutellum*, small shield.] *Pert.* a scutellum.

scutellate (skū'tēlat, skūtē'lāt) *a.* [L. *scutellum*, small shield.] Shaped like a small shield; scutelliform.

scutellation (skū'tēlā'shūn) *n.* [L. *scutellum*, small shield.] Arrangement of scales, as on tarsus of bird.

scutelliform,—scutellate.

scutelligerous (skū'tēlij'ērūs) *a.* [L. *scutellum*, small shield; *gerere*, to bear.] Furnished with scutella or a scutellum.

scutellipantar (skūtēl'iplān'tār) *a.* [L. *scutellum*, small shield; *planta*, sole of foot.] Having tarsus covered with small plates or scutella.

scutellum (skūtēl'ūm) *n.* [L. *scutellum*, small shield.] A tarsal scale of birds; posterior part of insect notum; the single massive coty-

ledon lying next starchy endosperm in seed of maize; development of part of cotyledon which separates embryo from endosperm in seed of grasses.

scutiferous,—scutigerous.

scutiform (skū'tifōrm) *a.* [L. *scutum*, shield; *forma*, shape.] Shaped like a shield; *appl.* floating leaf of *Salvinia*.

scutigerous (skūtij'ērūs) *a.* [L. *scutum*, shield; *gerere*, to bear.] Bearing a shield-like structure; scutiferous.

scutiped (skū'tipēd) *a.* [L. *scutum*, shield; *pes*, foot.] Having foot or part of it covered by scutella.

scutum (skū'tūm) *n.* [L. *scutum*, shield.] Broad apex of style, as in *Asclepiadeae*; one of eight plates surrounding antheridium of *Chara*; a shield-like plate, horny, bony, or chitinous, developed in integument; fornix or modified spine overhanging aperture in some *Cheilostomata*; middle sclerite of insect notum; dorsal shield of ticks.

scyphi,—*plu.* of scyphus.

scyphiferous (sifif'ērūs) *a.* [L. *scyphus*, cup; *ferre*, to bear.] Bearing scyphi, as some lichens.

scyphiform (sif'ifōrm) *a.* [L. *scyphus*, cup; *forma*, shape.] Shaped like a cup; scyphoid.

scyphistoma (sifis'tōmā) *n.* [Gk. *skyphos*, cup; *stoma*, mouth.] A scyphula, the scyphozoon polyp stage in development of *Aurelia*; hydra-tuba.

scyphoid (sif'oid) *a.* [Gk. *skyphos*, cup; *eidōs*, form.] Cup-shaped; scyphiform.

scyphose (sif'ōs) *a.* [L. *scyphus*, cup.] Having scyphi; scyphiform.

scyphula (sif'ūlā) *n.* [L.L. *dim.* of *scyphus*, cup.] A scyphistoma.

scyphulus (sif'ūlūs) *n.* [*Dim.* of L. *scyphus*, cup.] A small cup-shaped structure.

scyphus (si'fūs) *n.* [L. *scyphus*, Gk. *skyphos*, cup.] Cup of narcissus; funnel-shaped corolla; cup-shaped expansion of podetium in some lichens.

sebaceous (sēhā'shūs) *a.* [L. *sebum*, tallow.] Containing or secreting fatty matter; *appl.* glands.

sebiferous (sēbif'ērūs) *a.* [L. *sebum*, tallow; *ferre*, to carry.] Conveying fatty matter.

sebific (sēbif'ik) *a.* [L. *sebum*, tallow; *facere*, to make.] Sebiparous; colleterial, *q.v.*, *appl.* glands in insects.

sebiparous (sēbip'ārūs) *a.* [L. *sebum*, tallow; *parere*, to beget.] Secreting fatty matter.

sebum (sē'būm) *n.* [L. *sebum*, tallow.] The secretion of sebaceous glands, consisting of fat and isocholesterin.

secodont (sēk'ōdōnt) *a.* [L. *secare*, to cut; Gk. *odous*, tooth.] Furnished with teeth adapted for cutting.

secondary (sēk'ōndārī) *a.* [L. *secundus*, second.] Second in importance or in position; arising, not from growing point, but from other tissue; Mesozoic. *n.* A forearm quill-feather of bird's wing; an insect hind-wing.

secondary bud,—an axillary bud, accessory to normal one.

secondary capitula,—six small cells rising from each capitulum of Chara.

secondary growth,—development of secondary meristem or cambium producing new tissue on both sides, as in woody dicotyledons.

secondary meristem,—phellogen.

secondary prothallium,—a tissue produced in megaspore of Selaginella after true prothallium is formed.

secondary roots,—branches of primary root, arising within its tissue, and in turn giving rise to tertiary roots; roots arising at other than normal points of origin.

secondary spore,—a small or ab-jointed spore; a mycelial spore.

secondary tissue,—tissue formed through phellogen, externally cork, and internally phelloderm.

secondary wood,—wood formed from cambium.

secreta (sēkrē'tā) *n. plu.* [L. *secretum*, separated.] Any products of a secretory process; all the secretions.

secretin (sēkrē'tīn) *n.* [L. *secernere*,

to separate.] A chemical substance or hormone produced in intestinal mucous membrane and which stimulates secretion of pancreatic juice.

secretion (sēkrē'shūn) *n.* [L. *secretio*, separation.] Substance or fluid which is separated and elaborated by cells or glands; process of such separation.

secretitious (sē'krētīsh'ūs) *a.* [L. *secernere*, to separate.] Produced by secretion, *appl.* substance or fluid.

secretory (sēkrē'tōrī) *a.* [L. *secernere*, to separate.] Effecting or *pert.* the secretion; secreting.

sectile (sēk'tīl) *a.* [L. *secare*, to cut.] Cut into small partitions or compartments.

sectorial (sēktō'rīāl) *a.* [L. *sector*, cutter.] Formed or adapted for cutting, as certain teeth; *appl.* chimaera when two different tissues extend from centre to periphery, a wedge of one tissue inserted in the other.

second (sēk'ūnd) *a.* [L. *secundus*, following.] Arranged on one side; *appl.* flowers or leaves on stem.

secundiflorous (sēkūnd'iflō'rūs) *a.* [L. *secundus*, following; *flos*, flower.] Having flowers on one side of stem only.

secundine (sēk'ūndīn) *n.* [L. *secundus*, following.] The second coat of ovule, lying within primine.

secundines,—foetal membranes collectively; placenta and membranes expelled after birth; afterbirth.

secondly (sēk'ūndlī) *adv.* [L. *secundus*, following.] On one side of a stem or axis.

sedentary (sēd'ēntārī) *a.* [L. *sedere*, to sit.] Not free-living; *appl.* animals attached by a base to some substratum; not migratory.

seed (sēd) *n.* [A.S. *saed*, seed.] A mature fruit containing an embryo ready for germination under suitable conditions; semen. *v.* To introduce micro-organisms into a culture medium.

seed-bud,—an ovule.

seed-coat,—the testa.

seed-leaf,—seed-lobe or cotyledon.

seed-plant,—a seed-bearing plant.

seed-stalk,—the funicle.

seed-vessel,—a structure containing seed, as a pod.

Seessel's pouch [*A. Seessel*, American embryologist]. A dorsal endodermal diverticulum from anterior end of fore-gut, behind buccopharyngeal membrane.

segment (sĕg'mĕnt) *n.* [L. *segmentum*, piece.] A division formed by cleavage of an ovum; part of an animal or of a jointed appendage; metamere; division of leaf if cleft nearly to base; portion of a chromosome.

segmental (sĕgmĕn'tāl) *a.* [L. *segmentum*, piece.] Of the nature of a segment; *pert.* a segment.

segmental arteries,—diverticula from dorsal aortae arising in spaces between successive somites.

segmental duct,—an embryonic nephridial duct which gives rise to Wolffian or Müllerian duct.

segmental interchange,—exchange of non-homologous segments as between two chromosomes; mutual translocation.

segmental organ,—an embryonic excretory organ; a nephridium.

segmental papillae,—conspicuous pigment spots by which true segments may be recognised in leeches.

segmentation (sĕg'mĕntā'shŭn) *n.* [L. *segmentum*, piece.] The division or splitting into segments or portions; cleavage of an ovum.

segmentation cavity,—blastocoel or central cavity formed at an early state of egg cleavage.

segmentation nucleus,—body formed by union of male and female pronuclei in fertilisation of ovum.

segregation (sĕg'rĕgā'shŭn) *n.* [L. *segregare*, to separate.] Separation of parental chromosomes at meiosis and dissociation of paternal and maternal characters; separation of genes.

seiospore (sī'ōspōr) *n.* [Gk. *seiein*, to shake; *sporos*, seed.] A spore

shaken from a sporophore and becoming air-borne.

seiroderm (sī'rōdĕrm) *n.* [Gk. *seira*, chain; *derma*, skin.] Dense outer tissue composed of parallel chains of hyphal cells, in certain fungi.

seiospore (sī'rōspōr) *n.* [Gk. *seira*, chain; *sporos*, seed.] One of spores arranged like a chain; formerly, a catenulate spore of certain red algae.

seismaesthesia (sīs'mĕsthē'ziā) *n.* [Gk. *seismos*, a shaking; *aisthesis*, perception.] Perception of mechanical vibrations.

seismonastic (sīs'mōnās'tik) *a.* [Gk. *seismos*, a shaking; *nastos*, pressed close.] Resulting from, or *pert.*, stimulus of mechanical shock or vibrations; *appl.* plant movements.

sejugous (sĕj'oogŭs, sĕjoog'ŭs) *a.* [L. *sex*, six; *jugum*, yoke.] With six pairs of leaflets; sejugate.

selachine (sĕl'ākīn) *n.* [Gk. *selachos*, shark.] A neurohumor of selachians which induces blanching of skin.

selenodont (sĕlē'nōdōnt) *a.* [Gk. *selene*, moon; *odous*, tooth.] *Appl.* molars lengthened out antero-posteriorly and curved.

selenoid (sĕlē'noid) *a.* [Gk. *selene*, moon; *eidōs*, form.] Crescentic.

selenotropism (sĕlēnōt'rōpīzm) *n.* [Gk. *selene*, moon; *trope*, turn.] Tendency to turn towards moon's rays.

self-fertile, self-sterile,—capable, —incapable,—of being fertilised by its own male elements; *appl.* hermaphrodite plants and animals.

self-pollination,—transference of pollen-grains from anthers to stigma of same flower; selfing.

sella turcica (sĕl'ā tŭr'sīkā) *n.* [L. *sella*, saddle; *turcicus*, Turkish.] Deep depression on superior surface of sphenoidal bone behind tuberculum sellae, the deepest part, fossa hypophyseos, lodging the pituitary body; transverse bar formed by union of apodemes of posterior somites of certain Decapoda.

sellaeform (sĕl'ĕfōrm) *a.* [L. *sella*, saddle; *forma*, shape.] Saddle-shaped.

sellar (sĕl'ār) *a.* [L. *sella*, saddle.] *Pert.* pituitary fossa or sella turcica.

selliform,—sellaeform.

selva (sĕl'vā) *n.* [Sp. *selva*, from L. *silva*, forest.] Tropical rain-forest.

sematic (sĕmāt'ik) *a.* [Gk. *sema*, sign.] Functioning as a danger signal, as warning colours or odours; *appl.* warning and recognition markings; *cf.* aposematic, episeomatic, parasematic.

semeiography (sĕmīōg'rāfi) *n.* [Gk. *semeion*, sign; *graphein*, to write.] A description of symptoms.

semen (sĕm'ĕn) *n.* [L. *semen*, seed.] Fluid composed of secretions of testes and accessory glands, and containing spermatozoa.

semiamplexicaul (sĕm'fāmplĕk'-skōl) *a.* [L. *semi*, half; *amplecti*, to embrace; *caulis*, stem.] Partially surrounding stem.

semianatropous (sĕm'fānāt'rōpūs) *a.* [L. *semi*, half; Gk. *ana*, up; *trope*, turn.] With half-inverted ovule.

semicaudate (sĕm'ikō'dāt) *a.* [L. *semi*, half; *cauda*, tail.] With tail rudimentary.

semicells,—the two halves of a cell, which are interconnected by an isthmus, as in certain green algae.

semicircular (sĕm'isĕr'kūlār) *a.* [L. *semi*, half; *circulus*, circle.] Describing a half-circle; *appl.* canals and ducts of ear labyrinth.

semiclasps (sĕm'iklāsp) *n.* [L. *semi*, half; M.E. *clasp*, to hold.] One of two apophyses which may combine to form the clasper in certain male insects.

semicomplete (sĕm'ikōmplĕt') *a.* [L. *semi*, half; *completus*, filled.] Incomplete; *appl.* metamorphosis.

semicylindrical (sĕm'isilīn'drikāl) *a.* [L. *semi*, half; *cylindrus*, cylinder.] Round on one side, flat on the other; *appl.* leaves.

semifloret (sĕm'iflō'rĕt) *n.* [L. *semi*, half; *flos*, flower.] A semi-

floscule or ray of composite flowers.

semiflosculous (sĕm'iflōs'kūlūs) *a.* [L. *semi*, half; *flosculus*, small flower.] Having ligulate florets.

semigamy,—hemigamy, *q.v.*

semilethal (sĕm'ilĕ'thāl) *a.* [L. *semi*, half; *lethalis*, deadly.] Not wholly lethal; *appl.* genes causing a mortality of more than fifty per cent, or permitting survival until reproduction has been effected; *cf.* subvital.

semiligneous (sĕm'ilīg'nĕūs) *a.* [L. *semi*, half; *ligneus*, wooden.] Partially lignified; with stem woody only near base.

semilocular (sĕm'ilōk'ulār) *a.* [L. *semi*, half; *loculus*, compartment.] *Appl.* ovary with incomplete loculi.

semilunar (sĕm'ilū'nār, -loo-) *a.* [L. *semi*, half; *luna*, moon.] Half-moon shaped; *appl.* branches of internal carotid artery, fibrocartilages of knee, ganglia, fascia, lobules of cerebellum, valves; *appl.* notch, greater sigmoid cavity between olecranon and coronoid process of ulna. *n.* A carpal bone, os lunatum.

semimembranosus (sĕm'imĕm'brā-nō'sūs) *n.* [L. *semi*, half; *membranous*, membranous.] A thigh muscle with flat membrane-like tendon at upper extremity.

semimetamorphosis (sĕm'imĕtā-mōr'fōsis) *n.* [L. *semi*, half; Gk. *metamorphosis*, transformation.] Partial, or semicomplete metamorphosis.

seminal (sĕm'ināl) *a.* [L. *semen*, seed.] *Pert.* semen; *appl.* fluid, duct, vesicle; *appl.* cotyledons, first roots of grasses.

seminal receptacle,—spermatheca, *q.v.*

semination (sĕm'inā'shūn) *n.* [L. *seminatio*, sowing.] Dispersal of seeds; discharge of spermatozoa; *cf.* insemination.

seminiferous (sĕminif'ērūs) *a.* [L. *semen*, seed; *ferre*, to carry.] Secreting or conveying seed or seminal fluid; bearing seed.

seminude (sēm'inūd) *a.* [L. *semi*, half; *nudus*, naked.] With ovules or seeds exposed.

seminymp (sēm'inīm) *n.* [L. *semi*, half; *nympha*, nymph.] Stage in development of insects approaching complete metamorphosis.

semiorbicular (sēm'iōrbik'ulār) *a.* [L. *semi*, half; *orbis*, orb.] Half rounded; hemispherical.

semiovate (sēm'io'vāt) *a.* [L. *semi*, half; *ovum*, egg.] Half-oval; somewhat oval.

semioviparous (sēm'io'vīp'ārūs) *a.* [L. *semi*, half; *ovum*, egg; *parere*, to beget.] Between oviparous and viviparous, as a marsupial whose young are imperfectly developed when born.

semiovoid (sēm'io'void) *a.* [L. *semi*, half; *ovum*, egg; Gk. *eidos*, form.] Somewhat ovoid in shape.

semipalmate (sēm'ipāl'māt) *a.* [L. *semi*, half; *palma*, palm of hand.] Having toes webbed halfway down.

semiparasite (sēm'ipār'āsīt) *n.* [L. *semi*, half; Gk. *parasitos*, eating beside another.] A partial parasite, as a plant which derives part only of its nutriment from its host.

semipenniform (sēm'ipēn'ifōrm) *a.* [L. *semi*, half; *penna*, feather; *forma*, shape.] *Appl.* certain muscles bearing some resemblance to plume or feather.

semipermeable (sēm'ipēr'mēābl) *a.* [L. *semi*, half; *per*, through; *meare*, to pass.] *Appl.* membrane which permits some dissolved substances to pass but not others, although permeable to a solvent, such as water.

semiplacenta (sēm'iplāsēn'tā) *n.* [L. *semi*, half; *placenta*, flat cake.] A non-deciduate placenta.

semiplume (sēm'iploom) *n.* [L. *semi*, half; *pluma*, feather.] A feather with ordinary shaft but downy web.

semipupa (sēm'ipū'pā) *n.* [L. *semi*, half; *pupa*, puppet.] Larval stage in development of certain insects.

semirecondite (sēm'irēkōn'dīt) *a.* [L. *semi*, half; *recondere*, to conceal.] Half-concealed, as insect head by thorax.

semisagittate (sēm'isāj'itāt) *a.* [L. *semi*, half; *sagitta*, arrow.] Shaped like a half arrow-head.

semisaprophyte (sēm'isāp'rōfit) *n.* [L. *semi*, half; Gk. *sapros*, rotten; *phyton*, plant.] A plant partially saprophytic.

semispecies (sēm'ispē'shēz) *n.* [L. *semi*, half; *species*, particular kind.] A species differentiated from another species as a result of geographical isolation.

semispinalis (sēm'ispinā'lis) *n.* [L. *semi*, half; *spinalis*, spinal.] A muscle of back, also of neck, on each side of spinal column, arising from transverse and inserted into spinous processes.

semistreptostylic, — between monistylic and streptostylic; with slightly movable quadrate.

semitendinosus (sēm'itēn'dinōsūs) *n.* [L. *semi*, half; *tendo*, sinew.] A dorsal muscle of thigh stretching from tuber ischii to tibia.

semitendinous (sēm'itēn'dinūs) *a.* [L. *semi*, half; *tendere*, to stretch.] Half tendinous.

semituberosus (sēm'itübērūs) *a.* [L. *semi*, half; *tuber*, hump.] Having somewhat tuberosus roots.

senescence (sēnēs'ēns) *n.* [L. *senescere*, to grow old.] Advancing age; ageing; *appl.* condition of protozoa after many bipartitions.

senility (sēnil'itī) *n.* (L. *senilis*, senile.) Senile derangement; vital exhaustion of protozoa.

sense organ, — an organ functional in receiving external stimulation; receptor.

sensiferous (sēnsif'ērūs) *a.* [L. *sensus*, sense; *ferre*, to carry.] Receiving or conveying sense impressions; sensigerous.

sensile (sēn'sīl) *a.* [L. *sensilis*, sensitive.] Capable of affecting a sense.

sensilla (sēnsil'ā) *n.* [L. *sensus*, sense.] A small sense organ.

sensitive (sĕn'sitĭv) *a.* [L. *sensus*, sense.] Capable of receiving impressions from external objects; reacting to a stimulus; *appl.* plants, as *Mimosa*.

sensorial (sĕnsō'rĭāl) *a.* [L. *sensus*, sense.] *Pert.* the sensorium.

sensorium (sĕnsō'rĭūm) *n.* [L. *sensus*, sense.] Seat of sensation or consciousness; entire nervous system with sense organs; the sensory, neuromuscular, and glandular system.

sensory (sĕn'sorĭ) *a.* [L. *sensus*, sense.] Having direct connection with any part of sensorium.

sentient (sĕn'shiĕnt) *a.* [L. *sentire*, to feel.] *Appl.* cells which are sensitive and perceptive.

sepal (sĕp'āl) *n.* [F. *sépale*; L. *separare*, to separate.] A leaf-like division of calyx.

sepaled (sĕp'āld) *a.* [L. *separare*, to separate.] Having sepals; sepalous.

sepaline (sĕp'ālĭn) *a.* [L. *separare*, to separate.] Like a sepal; sepaloid.

sepalody (sĕpāl'ōdĭ) *n.* [L. *separare*, to separate; Gk. *eidos*, form.] Conversion of petals or other parts of a flower into sepals.

sepaloid (sĕp'āloid) *a.* [L. *separare*, to separate; Gk. *eidos*, form.] Like a sepal; sepaline.

sepicolous (sĕpĭk'ōlūs) *a.* [L. *sepes*, hedge; *colere*, to inhabit.] Living in hedges.

sepiment (sĕp'mĭment) *n.* [L. *sepimentum*, fence.] A partition; a dissepiment, *q.v.*

sepion (sĕp'ĭōn) *n.* [Gk. *sepion*, cuttle-bone.] Cuttle-bone, or sepia-bone, sepiost, sepiostaire, sepium.

septa,—*plu.* of septum.

septal (sĕp'tāl) *a.* [L. *septum*, partition.] *Pert.* a septum; *pert.* hedge-rows, *appl.* flora.

septal fossula,—a small primary septum which appears to lie in a pit in some fossil corals.

septal neck,—in nautilus, a shelly tube continuous for some distance beyond each septum as support to siphuncle.

septate (sĕp'tāt) *a.* [L. *septum*, partition.] Divided by partitions.

septempartite (sĕp'tĕmpār'tit) *a.* [L. *septem*, seven; *pars*, part.] *Appl.* leaf with seven divisions extending nearly to base.

septenate (sĕp'tĕnāt) *a.* [L. *septeni*, seven each.] With parts in sevens; *appl.* seven leaflets of a leaf.

septicidal (sĕp'tisĭ'dāl) *a.* [L. *septum*, division; *caedere*, to cut.] Dividing through middle of ovary septa; dehiscing at septum.

septiferous (sĕptĭf'ĕrūs) *a.* [L. *septum*, partition; *ferre*, to bear.] Having septa.

septifolious (sĕp'tifō'liūs) *a.* [L. *septem*, seven; *folium*, leaf.] With seven leaves or leaflets.

septiform (sĕp'tĭfōrm) *a.* [L. *septum*, partition; *forma*, shape.] In form of a septum.

septifragal (sĕptĭf'rāgāl) *a.* [L. *septum*, partition; *frangere*, to break.] With slits as in septicidal dehiscence, but with septa broken and placenta and seeds left in middle.

septomaxillary (sĕp'tōmāksĭl'ārĭ) *a.* [L. *septum*, partition; *maxilla*, jaw.] *Pert.* maxilla and nasal septum; *appl.* a small bone in many amphibians and reptiles and in certain birds.

septonasal (sĕp'tōnā'zāl) *a.* [L. *septum*, partition; *nasus*, nose.] *Pert.* nasal, or internarial, septum.

septulate (sĕp'tūlāt) *a.* [L. *septulum*, small septum.] Having spurious, or secondary septa.

septulum (sĕp'tūlūm) *n.* [L. *septulum*, small septum.] A small or secondary septum.

septum (sĕp'tūm) *n.* [L. *septum*, partition.] A partition separating two cavities or masses of tissue, as in fruits, chambered shells, corals, heart, nose, tongue, etc.

septum lucidum,—thin inner walls of cerebral hemispheres, between corpus callosum and fornix; septum pellucidum.

septum narium,—partition between nostrils; septum mobile nasi.

septum transversum,—foetal diaphragm; ridge within ampulla of semicircular canal.

sera,—*plu.* of serum.

seral (sēr'āl) *a.* [L. *serere*, to put in a row.] *Pert.* a sere; *appl.* a plant community before reaching equilibrium or climax.

sere (sēr) *n.* [L. *serere*, to put in a row.] A successional series of plant communities, as from prairie to climax; a stage in a succession.

seriate (sēr'iāt) *a.* [L. *serere*, to put in a row.] Arranged in a row or series.

sericate (sēr'ikāt), **sericeous** (sēr'ish'ūs) *a.* [L. *sericus*, silken.] Covered with fine close-pressed silky hairs; silky.

serific (sērif'ik) *a.* [L. *sericum*, silk; *facere*, to make.] Silk-producing.

serology (sēröl'öji) *n.* [L. *serum*, whey; Gk. *logos*, discourse.] The study of sera.

serosa (sērō'sā) *n.* [L. *serum*, whey.] Any serous membrane, or tunica serosa; visceral peritoneum; false amnion or outer layer of amniotic fold; outer larval membrane of insects.

serosity (sērös'iti) *n.* (L. *serum*, whey.) Watery part of animal fluid; condition of being serous.

serotinous (sēröt'inūs) *a.* [L. *serus*, late.] Appearing or blooming late in the season; flying late in the evening, as bats.

serotonin (sēröt'önin) *n.* [L. *serum*, whey; Gk. *tonos*, tightening.] A vasoconstrictor compound in blood platelets, also in brain cells, which causes contraction of smooth muscle; 5 hydroxytryptamine.

serous (sēr'ūs) *a.* [L. *serum*, serum.] Watery; *pert.* serum; *appl.* fluid, cells, tissue, glands.

serous alveoli,—alveoli which secrete a watery non-viscid saliva, *opp.* mucous alveoli.

serous membrane,—a thin membrane of connective tissue, lining some closed cavity of body, and reflected over viscera, as mesentery.

serozyme (sēr'özim) *n.* [L. *serum*, serum; Gk. *zyme*, leaven.] Thrombinogen; prothrombin, *q.v.*

serozymogenic (sēr'özim'öjēn'ik) *a.*

[L. *serum*, serum; Gk. *zyme*, leaven; *gennaein*, to produce.] *Appl.* cells of serous alveoli when containing zymogen granules.

serpulite (sēr'pülit) *n.* [L. *serpula*, small snake; Gk. *lithos*, stone.] The fossil tube of a polychaete; *appl.* grit containing fossil worm-tubes.

serra (sēr'ä) *n.* [L. *serra*, saw.] Any saw-like structure.

serrate (sēr'ät) *a.* [L. *serra*, saw.] Notched on edge like a saw; *appl.* leaves and other structures.

serrate-ciliate,—with hairs fringing toothed edges.

serrate-dentate,—with serrate edges themselves toothed.

serratifform (sēr'ätif'förm) *a.* [L. *serra*, saw; *forma*, shape.] Like a saw.

serration (sēr'ä'shün) *n.* [L. *serra*, saw.] Saw-like formation.

serratirostral (sēr'ät'irös'träl) *a.* [L. *serra*, saw; *rostrum*, beak.] With serrate bill; *appl.* birds.

serratodenticulate (sēr'ät'ödēntik'ülät) *a.* [L. *serra*, saw; *dens*, tooth.] With many-toothed serrations.

serratulate,—serrulate.

serrature (sēr'ätür) *n.* [L. *serra*, saw.] A saw-like notch; a serration.

serratus magnus,—or anterior, a muscle stretching from upper ribs to scapula.

serriferous (sērif'ērüs) *a.* [L. *serra*, saw; *ferre*, to carry.] Furnished with a saw-like organ or part.

serriform (sēr'if'förm) *a.* [L. *serra*, saw; *forma*, shape.] Like a saw.

serriped (sēr'ipēd) *a.* [L. *serra*, saw; *pes*, foot.] With notched feet.

serrula (sēr'ülä) *n.* [L. *serrula*, small saw.] A comb-like ridge on chelicerae of some Arachnida.

serrulate (sēr'ülät) *a.* [L. *serrula*, small saw.] Finely-notched.

serrulation (sēr'ülä'shün) *n.* [L. *serrula*, small saw.] Small notch; condition of being finely notched.

Sertoli cells [*E. Sertoli*, Italian histologist]. Enlarged lining epithelium-cells connected with groups of developing spermatozoa in testes; supporting cells.

serule (sēr'ül) *n.* [L. *serere*, to put in a row; *dim.*] A minor sere; succession of minor life forms.

serum (sēr'rüm) *n.* [L. *serum*, whey.] Watery fluid which separates from blood on coagulation; the secretion of a serous membrane; whey.

serum albumin, serum globulin,—two of proteins of serum.

sesamoid (sēs'ämoid) *a.* [Gk. *sesamon*, sesame; *eidos*, form.] *Appl.* a bone developed within a tendon and near a joint, as patella, radial or ulnar sesamoid, fabella. *n.* A sesamoid bone.

sesamoidal (sēs'ämoidäl) *a.* [L. *sesamon*, sesame; *eidos*, form.] *Pert.* a sesamoid bone.

sessile (sēs'il) *a.* [L. *sedere*, to sit.] Sitting directly on base without support, stalk, pedicel, or peduncle; attached or stationary, *opp.* free-living or motile.

seston (sēs'tön) *n.* [Gk. *sisis*, sifting.] Microplankton; all bodies, living and non-living, floating or swimming in water; cf. nekton, neuston, plankton, tripton.

seta (sē'tä) *n.* [L. *seta*, bristle.] Any bristle-like structure; sporophore of liverworts and mosses; chaeta of Chaetopoda.

setaceous (sētā'shüs) *a.* [L. *seta*, bristle.] Bristle-like; set with bristles.

setiform (sē'tiförm) *a.* [L. *seta*, bristle; *forma*, shape.] Bristle-shaped; *appl.* teeth when very fine and closely set.

setigerous (sētij'erüs) *a.* [L. *seta*, bristle; *gerere*, to bear.] Bristle-bearing; setiferous; setiparous.

setigerous sac,—a sac, in which is lodged a bundle of setae, formed by invagination of epidermis in parapodium of Chaetopoda.

setirostral (sē'tirös'trä) *a.* [L. *seta*, bristle; *rostrum*, beak.] *Appl.* birds with beak bristles.

setobranchia (sē'töbräng'kiä) *n.* [L. *seta*, bristle; Gk. *branchia*, gills.] A tuft of setae attached to gills of certain decapods; coxopoditic setae.

setose (sētös') *a.* [L. *seta*, bristle.] Set with bristles; bristly.

setula (sēt'ülä) *n.* [*Dim.* from L. *seta*, bristle.] A setule: a thread-like or hair-like bristle.

setuliform (sēt'üliförm) *a.* [*Dim.* from L. *seta*, bristle; *forma*, shape.] Thread-like; like a setula or fine bristle.

setulose (sēt'ülös) *a.* [*Dim.* from L. *seta*, bristle.] Set with small bristles.

sex (sëks) *n.* [L. *sexus*, sex.] The sum of characteristics, structures, functions, by which an animal or plant is classed as male or female.

sex-chromosome,—the chromosome whose presence, absence, or particular form may determine sex; X, Y, or W chromosome; also monosome, idiochromosome, heterochromosome, special or odd chromosome, etc.

sex differentiation,—differentiation of gametes; differentiation of organisms into kinds with different sexual organs.

sexdigitate (sëksdij'tät) *a.* [L. *sex*, six; *digitus*, finger.] With six fingers or toes.

sexfid (sëks'fid) *a.* [L. *sex*, six; *findere*, to cleave.] Cleft into six, as a calyx.

sexfoil (sëks'foil) *n.* [L. *sex*, six; *folium*, leaf.] A group of six leaves or leaflets round one axis.

sex hormones,—gonad hormones and gonadotropic hormones.

sex-limited inheritance,—inheritance of characters whose factors have effect in one sex only.

sex-linked inheritance,—transmission of characters whose factors are borne by the sex-chromosome.

sex mosaic,—an intersex, *q.v.*; gynandromorph, *q.v.*

sex ratio,—number of males per hundred females, or, per hundred births; percentage of males in a population.

sex-reversal,—sex-transformation, a change-over from one sex to the other, natural, pathological, or artificially induced.

sexual (sëk'süäl) *a.* [L. *sexus*, sex.] *Pert.* sex; *appl.* reproduction, etc.

sexual cell,—ovum or sperm.

sexual dimorphism,—marked differences, in shape, size, structure, colour, etc., between male and female of the same species.

sexuparous (sĕk'sū'pārūs) *a.* [L. *sexus*, sex; *parere*, to bear.] Producing sexual offspring, as after bearing parthenogenetic females in Pterygota.

shaft (shāft) *n.* [A.S. *sceaft*, spear-shaft.] A rachis; distal part of stem of feather; stem of hair; scapus; straight cylindrical part of long bone.

Sharpey's fibres [*W. Sharpey*, Scottish surgeon]. Calcified bundles of white fibres and elastic fibres perforating and holding together periosteal lamellae; perforating fibres.

sheath (shĕth) *n.* [A.S. *scelth*, shell or pod.] A protective covering; theca; investing petiole; insect wing-cover.

shell (shĕl) *n.* [A.S. *scell*, shell.] The hard outer covering of animal or fruit; a calcareous, siliceous, bony, horny, or chitinous covering.

shell gland, shell sac,—organ in whose walls material for forming a shell is secreted.

shield (shĕld) *n.* [A.S. *scyld*, shield.] Carapace, *q.v.*; clypeus, *q.v.*; scutellum, *q.v.*; scutum, *q.v.*; disc-like ascocarp or apothecium borne on thallus of lichens.

shift (shift) *n.* [A.S. *sciftan*, to divide.] *Appl.* translocation in which the portion between two breaks is transferred to a gap left by a third break in the same chromosome; *cf.* insertional.

short-day,—*appl.* plants in which the flowering period is hastened by a relatively short photoperiod, ordinarily less than 12 hours.

shoulder girdle,—pectoral girdle, typically comprising scapula, coracoid, precoracoid, and clavicle.

Shrapnell's membrane [*H. J. Shrapnell*, English anatomist]. Small, flaccid part of the tympanic membrane above malleolar folds; pars flaccida, *opp.* pars tensa.

sialaden (siāl'ādĕn) *n.* [Gk. *sialon*, saliva; *aden*, gland.] A salivary gland.

sialic (sī'ālik) *a.* [Gk. *sialon*, saliva.] *Pert.* saliva.

sialoid (sī'āloid) *a.* [Gk. *sialon*, saliva; *eidos*, form.] Like saliva.

siblings (sib'lingz) *n. plu.* [A.S. *sibb*, kin.] Offspring of same parents, but not at same birth.

siccous (sik'ūs) *a.* [L. *siccus*, dry.] Dry; with little or no juice.

sicula (sik'ulā) *n.* [L. *sicula*, small dagger.] A small dagger-shaped body at end of a graptolite, supposed to be skeleton of primary zooid of colony.

sicyoid (sis'ioïd, sik'-) *a.* [Gk. *sikyos*, gourd; *eidos*, form.] Gourd-shaped.

side-chain theory,—Ehrlich's theory of phenomena of immunity, *i.e.*, that toxins unite with living protoplasm by possessing the same property as that by which nutritive proteins are normally assimilated.

siderocyte (sid'ērōsīt) *n.* [Gk. *sideros*, iron; *kytos*, hollow.] An erythrocyte containing free iron not utilised in haemoglobin formation.

siderophil (sid'ērōfil') *a.* [Gk. *sideros*, iron; *philos*, loving.] Staining deeply with iron-coating stains; tending to absorb iron; siderophilous. *n.* An organism which thrives in the presence of iron.

sierozem (syēr'ōzēm) *n.* [Russ. *seryi*, grey; *zemlya*, soil.] Grey soil, containing little humus, of middle-latitude continental desert regions.

sieve area,—perforated area of cell-wall of sieve elements, with groups of pores surrounded by callose.

sieve cell,—a phloem cell having perforated areas of cell-wall; a cell of sieve tubes.

sieve disc,—sieve plate, in phloem cells.

sieve elements,—the conducting parts of phloem, sieve cells and sieve-tube cells.

sieve pit,—a primary pit giving rise to a sieve pore.

sieve plate,—part of the wall of a sieve cell, containing simple or compound sieve areas; the perforated and thickened end of a sieve-tube cell; area of coxal lobe of pedipalp, with openings of salivary ducts, in spiders.

sieve pore,—one of the perforations in a sieve area or sieve plate.

sieve tissue,—essential tissue of phloem of vascular bundles.

sieve tubes,—phloem vessels, long slender structures consisting of elongated cells placed end to end, forming lines of conduction.

sight (sit) *n.* [A.S. *siht*, sight.] The visual faculty; impressions of outward things conveyed to brain by retina and optic nerves.

sigillate (sij'ilāt) *a.* [L. *sigillum*, seal.] Having seal-like markings, as certain rhizomes and roots.

sigma (sig'mā) *n.* [Gk. Σ, sigma.] A C-shaped sponge spicule.

sigmaspire (sig'māspīr) *n.* [Gk. Σ, sigma; L. *spira*, coil.] A sigma with an additional twist.

sigmoid (sig'moid) *a.* [Gk. Σ, sigma; *eidōs*, form.] Curved like a sigma; curved in two directions; *appl.* arteries, cavities, valves.

sigmoid flexure,—an S-shaped double curve as in a bird's neck; S-shaped curve of colon.

silicle (sil'ikl) *n.* [L. *silicula*, little pod.] A silicula, or short flat form of siliqua.

silicole (sil'ikōl) *n.* [L. *silex*, flint; *colere*, to inhabit.] A plant thriving in markedly siliceous soil; *cf.* calcifuge.

silicula,—see silicle.

silicular (sil'ik'ulār) *a.* [L. *silicula*, little pod.] Siliculose; siliculous; like, *pert.*, or having a silicle.

siliqua (sil'ikwā) *n.* [L. *siliqua*, pod.] A long cylindrical fruit divided in two by a false septum, characteristic of Cruciferae; silique; superficial funicles surrounding olive, *q.v.*

siliquiform (sil'ikwifōrm) *a.* [L. *siliqua*, pod; *forma*, shape.] Formed like a silique or siliqua.

siliquose (sil'ikwōs) *a.* [L. *siliqua*, pod.] Siliquous; bearing siliques.

Silurian (silū'riān) *a.* [L. *Silures*, a people of South Wales.] *Pert.* or *appl.* period of Palaeozoic era, between Ordovician and Devonian.

silva,—selva, *q.v.*; sylva, *q.v.*

silvicolous (silvik'ölūs) *a.* [L. *silvicola*, forest inhabitant.] Inhabiting or growing in woodlands; *appl.* plant formations.

simblosore (sim'blōspōr) *n.* [Gk. *simblōs*, beehive; *sporos*, seed.] Swarm spore or zoospore.

simian (sim'iān) *a.* [L. *simia*, ape.] Possessing characteristics of, or *pert.*, anthropoid apes.

simple eyes,—ocelli which occur with or without compound eyes in adults of many insects; usually the only eyes possessed by larvae; eyes with only one lens.

simplex (sim'plēks) *a.* [L. *simplex*, simple.] Having one dominant gene, in polyploidy.

simulation (sim'ulā'shūn) *n.* [L. *simulare*, to simulate.] Assumption of features or structures intended to deceive enemies, as forms of leaf and stick insects, and all varieties of protective coloration.

sincipital (sinsip'itāl) *a.* [L. *semi*, half; *caput*, head.] *Pert.* the sinciput.

sinciput (sin'sipūt) *n.* [L. *semi*, half; *caput*, head.] Upper or fore part of head.

sinistral (sin'istrāl) *a.* [L. *sinister*, left.] On the left; *appl.* a shell whose spiral turns in opposite direction to dextral.

sinistrorse (sin'istrōrs) *a.* [L. *sinister*, left; *vertere*, to turn.] *Appl.* a spiral twining towards the left, *opp.* dextrorse.

sinuate (sin'ūāt) *a.* [L. *sinus*, curve.] Winding; tortuous; having a wavy indented margin, as leaves; sinuous.

sinu-auricular (sin'ūōrik'ulār) *a.* [L. *sinus*, gulf; *auricula*, small ear.] *Appl.* node, a group of cells of the auricle near opening of anterior vena cava and where heart-beat is initiated; *cf.* pace-maker; *appl.*

- valves between sinus venosus and atrium; sinuatrial.
- sinupalliate** (sín'úpāl'iāt) *a.* [L. *sinus*, curve; *pallium*, niantle.] In molluscs, having well-developed siphon, and so an indented pallial line. *Opp.* integripalliate.
- sinus** (sín'ūs) *n.* [L. *sinus*, curve, or gulf.] A cavity, depression, recess, or dilatation; a groove or indentation.
- sinus glands**,—endocrine glands in eye-stalks of decapod crustaceans.
- sinus pocularis**,—uterus masculinus.
- sinus rhomboidalis**,—in vertebrate embryos, posterior incompletely-closed part of medullary canal; later, a dilatation of canal in sacral region, formed from it.
- sinus venosus**,—posterior chamber of tubular heart of embryo; in lower vertebrates, a corresponding structure receiving venous blood and opening into auricle; cavity of auricle.
- sinuses of Valsalva** [*A. M. Valsalva*, Italian anatomist]. Dilatations of pulmonary artery and of aorta, opposite pulmonary and aortic semilunar valves of heart.
- sinusoid** (sín'ūsoid) *n.* [L. *sinus*, curve; Gk. *eidōs*, form.] A minute blood space in organ tissue formed from intercrescence of endodermal cells and vascular endothelium, as in liver; blood space with irregular lumen connecting arterial and venous capillaries.
- siphon** (síf'ōn) *n.* [Gk. *siphon*, reed or tube.] A tubular or siphon-like structure of various organisms, subserving various purposes.
- siphonate** (síf'ōnāt) *a.* [Gk. *siphon*, tube.] Furnished with a siphon or siphons.
- siphonet** (síf'ōnēt) *n.* [Gk. *siphon*, tube.] The honeydew tube of an aphid.
- siphonial** (sifō'niāl) *a.* [Gk. *siphon*, tube.] *Pert.* a siphonium.
- siphonium** (sifō'niūm) *n.* [Gk. *siphon*, tube.] Membranous tube connecting air-passages of quadrate with air-space in mandible; also siphoneum.
- siphonogamic** (síf'ōnōgām'ík) *a.* [Gk. *siphon*, tube; *gamos*, marriage.] Securing fertilisation through a pollen tube; siphonogamous.
- siphonogamy** (síf'ōnōg'āmí) *n.* [Gk. *siphon*, tube; *gamos*, marriage.] Fertilisation by means of a pollen tube.
- siphonoglyph** (síf'ōnōglí'f) *n.* [Gk. *siphon*, tube; *glyphein*, to engrave.] One of two longitudinal grooves or sulci of gullet of sea-anemones.
- siphonoplax** (síf'ōnōplāks') *n.* [Gk. *siphon*, tube; *plax*, tablet.] A calcareous plate connected with siphon of certain molluscs.
- siphonostele** (síf'ōnōstēl'e) *n.* [Gk. *siphon*, tube; *stele*, post.] The hollow vascular cylinder of a stem, which may contain pith.
- siphonostelic** (síf'ōnōstēl'ík) *a.* [Gk. *siphon*, tube; *stele*, post.] *Appl.* hollow cylindrical stems, chiefly of ferns.
- siphonostomatous** (síf'ōnōstōm'ātūs) *a.* [Gk. *siphon*, tube; *stoma*, mouth.] With tubular mouth; having front margin of shell notched for emission of siphon.
- siphonozooid** (síf'ōnōzō'oid) *n.* [Gk. *siphon*, tube; *zoon*, animal; *eidōs*, form.] Small modified polyp without tentacles and serving to propel water through canal system of certain Alcyonarian colonies.
- siphorhinal** (síf'ōrínāl) *a.* [Gk. *siphon*, tube; *rhines*, nostrils.] With tubular nostrils.
- siphuncle** (síf'ūngkl) *n.* [L. *siphunculus*, small tube.] A siphonet; a median tube of skin, partly calcareous, connecting up all compartments of a nautilus shell.
- siphunculate** (síf'ūng'kulāt) *a.* [L. *siphunculus*, small tube.] Having a siphuncle; having mouth-parts modified for sucking, as certain lice.
- siro**,—see *seiro*.
- sitology** (sitōl'ōjī) *n.* [Gk. *sitos*, food; *logos*, discourse.] Science of food, diet, and nutrition.
- sitophore** (sít'ōfōr) *n.* [Gk. *sitos*, food; *pherein*, to bear.] Trough of hypopharynx between arms of suspensorium.

sitotoxin (sīt'ōtōk'sin) *n.* [Gk. *sitos*, food; *toxikon*, poison.] Food poison.

sitotropism (sītōt'rōpīzm) *n.* [Gk. *sitos*, food; *trope*, turn.] Tendency to turn in direction of food; reaction towards stimulating influences of food.

skeletal (skēl'ētāl) *a.* [Gk. *skeletos*, dried.] *Pert.* the skeleton.

skeletogenous (skēl'ētōj'ēnūs) *a.* [Gk. *skeletos*, hard; *gennaein*, to produce.] *Appl.* embryonic structures or parts which later become parts of skeleton.

skeleton (skēl'ētōn) *n.* [Gk. *skeletos*, dried, hard.] Hard framework, internal or external, which supports and protects softer parts of plant or animal; bones in their natural arrangement.

skeletoplasm (skēl'ētōplāzm) *n.* [Gk. *skeletos*, hard; *plasma*, mould.] Formative material destined to form supporting structures.

Skene's glands [*A. J. C. Skene*, Scottish gynaecologist]. Mucous glands of the female urethra; para-urethral glands.

skiaphyte (skī'āfit) *n.* [Gk. *skia*, shade; *phyton*, plant.] A plant growing in the shade, as algae under rocks; skiarophyte.

skin (skin) *n.* [A.S. *scinn*, skin.] The external covering of an animal, plant, fruit, or seed.

skin-gills, — transparent contractile outgrowths from skin of Asteroidea, with respiratory function.

skin-rings, — annular markings on body of worms.

skiophilous (skīōf'ilūs) *a.* [Gk. *skia*, shade; *philein*, to love.] Shade-loving; skiophil, heliophobous.

skiophyll (skī'ōfil) *n.* [Gk. *skia*, shade; *phyllon*, leaf.] A plant having dorsiventral leaves. *Opp.* heliophyll.

skotoplankton (skōt'ōplāngk'tōn) *n.* [Gk. *skotos*, darkness; *planktos*, wandering.] Plankton living at depths below 500 metres.

skototaxis (skōt'ōtāk'sis) *n.* [Gk. *skotos*, darkness; *taxis*, arrange-

ment.] Positive orientation towards darkness, not negative phototaxis.

skull (skūl) *n.* [M.E. *skulle*, cranium.] Cranium or hard and bony part of head of vertebrate, containing brain.

sliding growth, — of cells, when new part of cell-wall slides over walls of cells with which it comes in contact; gliding growth. *Opp.* interpositional or intrusive growth.

slime bodies, — cytoplasmic bodies elaborating a viscid proteid, as in sieve-tube cells.

slime layer, — carbohydrate sheath of certain bacterial cells, capsule when thickened.

slime spore, — myxospore, *q.v.*

slough (slūf) *n.* [M.E. *slouh*, skin of snake.] The dead outer skin cast off periodically by snakes.

smegma (smēg'mā) *n.* [Gk. *smegma*, unguent.] Secretion of preputial glands, or of clitoris glands; sebum preputiale.

smell (smēl) *n.* [M.E. *smel*, odour.] Sensation and perception induced by stimulation of the olfactory cells by odorous molecules; an odour.

smut (smūt) *n.* [A. S. *smitta*, spot.] A disease of grasses and other plants, caused by Ustilaginales, fungi producing numerous black spores; any smut fungus.

soboles (sōb'ōlēz) *n.* [L. *soboles*, offshoot.] A sucker or underground creeping stem.

soboliferous (sōbōlīf'ērūs) *a.* [L. *soboles*, offshoot; *ferre*, to carry.] Having shoots or running stems.

sociation (sōsiā'shūn) *n.* [L. *sociare*, to associate.] A minor unit of vegetation; micro-association.

society (sōsī'ēti) *n.* [L. *societas*, company.] A number of organisms forming a community; a community of plants other than dominants within an association or consociation.

soft-rayed, — having jointed fin-rays.

soft-shelled, — *appl.* eggs; *appl.* turtles with soft leathery skin.

sola, — *plu.* of solum.

solaeus, — soleus, *q.v.*

spanogamy (spānōg'āmī) *n.* [Gk. *spanos*, scarce; *gamos*, marriage.] Progressive decrease in number of females.

spasm (spāzm) *n.* [Gk. *spasmos*, tension.] Involuntary muscular contraction; spastic or spasmodic contraction of muscle fibres.

spasmoneme (spāz'mōnēm) *n.* [Gk. *spasmos*, tension; *nema*, thread.] In certain infusorians, a stalk-muscle formed by union of longitudinal myonemes.

spat (spāt) *n.* [A.S. *spætan*, to spit.] The spawn or young of bivalve molluscs.

spathaceous (spāthā'shūs) *a.* [L. *spatha*, broad blade.] Resembling or bearing a spathe; spathal.

spathe (spāth) *n.* [Gk. *spathe*, broad blade.] A large enveloping leaf, green or petaloid, protecting a spadix.

spathed (spāthd) *a.* [Gk. *spathe*, broad blade.] Furnished with a spathe.

spathella (spāthēl'ā) *n.* [L. *spatha*, broad blade.] Small spathe surrounding division of palm spadix.

spathose (spā'thōs) *a.* [L. *spatha*, broad blade.] With or like a spathe.

spatia zonularia,—canal of Petit, surrounding marginal circumference of lens of eye.

spatula (spāt'ulā) *n.* [L. *spatula*, spoon.] A breast-bone or anchor process of certain dipterous larvae.

spatulate (spāt'ulāt) *a.* [L. *spatula*, spoon.] Spoon-shaped; *appl.* a leaf with broad, rounded apex, thence tapering to base.

spawn (spōn) *n.* [O.F. *espandre*, to shed.] Collection of eggs deposited by bivalve molluscs, fishes, frogs, etc.; mycelium of certain fungi. *v.* To deposit eggs, as by fishes, etc.

spay (spā) *v.* [L. *spado*, eunuch.] To deprive of ovaries.

speciation (spēsīā'shūn) *n.* [L. *species*, particular kind.] The evolution of species; development of a specific quality; species formation.

species (spēs'shēz) *n.* [L. *species*, particular kind.] A group of interbreeding individuals not interbreeding with another such group; a systematic unit including geographic races and varieties, and included in a genus.

specific (spēsif'ik) *a.* [L. *species*, particular kind; *facere*, to make.] Peculiar to; *pert.* a species; *appl.* characteristics distinguishing a species; *appl.* name: the second name in binomial nomenclature.

specific dynamic action, — *see* dynamic.

specificity (spēs'ifis'iti) *n.* [L. *species*, kind; *facere*, to make.] Condition of being specific; being limited to a species; restriction of parasites to particular hosts.

spectrum (spēk'trūm) *n.* [L. *spectrum*, appearance.] A statistical survey of the distribution of species for determination and comparison of biogeographical regions.

spelaeology (spē'lēōl'ōji) *n.* [Gk. *spelaeion*, cave; *logos*, discourse.] The study of caves and cave life.

sperm (spērm) *n.* [Gk. *sperma*, seed.] The male fertilising element; spermatozoid. *q.v.*; spermatozoon, *q.v.* semen, *q.v.*

sperm centrosome, — end-knob of axial filament of spermatozoon, situated on middle piece just at base of head; according to others, the small body at apex of head.

sperm nucleus,—male pronucleus.

sperm pump,—an organ forcing spermatozoa into penis, as in Phlebotomus; pompetta.

spermaduct (spēr'mādūkt) *n.* [Gk. *sperma*; seed; L. *ducere*, to lead.] Duct for conveying spermatozoa.

spermagonium, — spermatogonium, *q.v.*; spermatogonium, *q.v.*; spermatogone.

spermangium (spēr'mān'jūm) *n.* [Gk. *sperma*, seed; *angeion*, vessel.] An organ producing male spore-like cells, in Ascomycetes.

spermaphore (spēr'māfōr) *n.* [Gk. *sperma*, seed; *pherein*, to bear.] Placenta of plants.

spermaphyte (spēr'māfit) *n.* [Gk. *sperma*, seed; *phyton*, plant.] Seed-plant; phanerogram, spermatophyte.

spermmary (spēr'māri) *n.* [Gk. *sperma*, seed.] An organ in which spermatozoa or antheridia are produced; spermarium; testis.

spermatangium (spēr'mātān'jiūm) *n.* [Gk. *sperma*, seed; *anggeion*, vessel.] Antheridium of certain algae.

spermateleosis (spēr'mātēlē'ōsis) *n.* [Gk. *sperma*, seed; *teleiosis*, completion.] Development of spermatozoon from spermatid in spermatogenesis, *q.v.*

spermatheca (spēr'māthē'kā) *n.* [Gk. *sperma*, seed; *theke*, case.] A receptaculum seminis; a sac, in female or in hermaphroditic invertebrates, for storing spermatozoa.

spermatia,—*plu.* of spermatium.

spermatic (spēr'māt'ik) *a.* [Gk. *sperma*, seed.] *Pert.* spermatozoa; *pert.* testis.

spermatid (spēr'mātid) *n.* [Gk. *sperma*, seed.] A haploid cell arising by division of secondary spermatocyte, and becoming a spermatozoon.

spermatiferous (spēr'mātif'ērūs) *a.* [Gk. *sperma*, seed; *L. ferre*, to carry.] Bearing spermatia.

spermatiphore (spēr'mā'shiōfōr) *n.* [Gk. *sperma*, seed; *pherein*, to bear.] A spermatia-producing sporophore.

spermatise (spēr'mātiz) *v.* [Gk. *sperma*, seed.] To impregnate.

spermatium (spēr'mā'shiūm) *n.* [Gk. *sperma*, seed.] A non-motile sperm of red algae; pycnidiospore in rust fungi; oidium in toadstools and mushrooms; small conidium in cup fungi.

spermatoblast (spēr'mātōblāst) *n.* [Gk. *sperma*, seed; *blastos*, bud.] A spermatid; a Sertoli cell, *q.v.*

spermatoblastic (spēr'mātōblās'tik) *a.* [Gk. *sperma*, seed; *blastos*, bud.] Sperm-producing.

spermatocyst (spēr'mātōsist) *n.* [Gk. *sperma*, seed; *kystis*, bladder.] A seminal sac.

spermatocyte (spēr'mātōsīt) *n.* [Gk. *sperma*, seed; *kytos*, hollow.] A cell arising by growth from a spermatogonium; a primary spermatocyte divides to form two secondary spermatocytes, each of which gives rise to two spermatids.

spermatocytogenesis (spēr'mātōsī'tōjēn'ēsis) *n.* [Gk. *sperma*, seed; *kytos*, hollow; *genesis*, descent.] First phase of spermatogenesis, preceding spermiogenesis.

spermatogenesis (spēr'mātōjēn'ēsis) *n.* [Gk. *sperma*, seed; *genesis*, origin.] Sperm-formation, from spermatogonium, through primary and secondary spermatocytes, and spermatid, to spermatozoon.

spermatogenetic (spēr'mātōjēnēt'ik) *a.* [Gk. *sperma*, seed; *genesis*, descent.] *Pert.* sperm-formation; sperm-producing; spermatogenic, spermatogenous.

spermatogonial (spēr'mātōgō'nīāl) *a.* [Gk. *sperma*, seed; *gonos*, offspring.] *Pert.* a spermatogonium.

spermatogonium (spēr'mātōgō'nīūm) *n.* [Gk. *sperma*, seed; *gonos*, offspring.] Primordial male germ-cell; sperm mother-cell; spermogonium, *q.v.*

spermatoid (spēr'mātoid) *a.* [Gk. *sperma*, seed; *eidos*, form.] Like a sperm.

spermatomerites (spēr'mātōm'ērīts) *n. plu.* [Gk. *sperma*, seed; *meros*, part.] Chromatin granules formed from sperm-nucleus.

spermatophore (spēr'mātōfōr) *n.* [Gk. *sperma*, seed; *pherein*, to bear.] A capsule of albuminous matter containing a number of sperms; spermatiphore, *q.v.*

spermatophyte (spēr'mātōfit) *n.* [Gk. *sperma*, seed; *phyton*, plant.] A seed-plant; phanerogam, spermatophyte, spermophyte.

spermatoplasm (spēr'mātōplāzm) *n.* [Gk. *sperma*, seed; *plasma*, mould.] Protoplasm of sperm cells.

spermatoplast (spēr'mātōplāst) *n.* [Gk. *sperma*, seed; *plastos*, moulded.] A male sexual cell.

spermatosome (spēr'mātōsōm) *n.* [Gk. *sperma*, seed; *soma*, body.] A spermatozoon.

spermatoxin (spēr'mātōk'sīn) *n.* [Gk. *sperma*, seed; *toxikon*, poison.] Antibodies causing sterility, formed after injection of spermatozoa in serum.

spermatozeugma (spēr'mātōzū'gmā) *n.* [Gk. *sperma*, seed; *zeugma*, bond.] Union by conjugation of two or more spermatozoa, as in vas deferens of some insects.

spermatozoa,—*plu.* of spermatozoon, *q.v.*

spermatozoid (spēr'mātōzō'id) *n.* [Gk. *sperma*, seed; *zoon*, animal; *idion*, *dim.*] An antherozoid; a free-swimming male gamete; spermatozoid.

spermatozoon (spēr'mātōzō'ōn) *n.* [Gk. *sperma*, seed; *zoon*, animal.] A male reproductive cell, consisting usually of head, middle piece, and locomotory flagellum.

spermiducal (spēr'mīdū'kāl) *a.* [Gk. *sperma*, seed; *L. ducere*, to lead.] *Appl.* glands into or near which sperm-ducts open, in many vertebrates; *appl.* glands associated with male ducts, or prostates, in Oligochaeta.

spermiduct,—spermaduct, *q.v.*

spermin (spēr'mīn) *n.* [Gk. *sperma*, seed.] The hormone of testis.

spermine (spēr'mēn) *n.* [Gk. *sperma*, seed.] A substance whose phosphate occurs in semen, also found in pancreas and yeast; $C_{10}H_{26}N_4$.

spermicalyptrotheca (spēr'miō-kālīp'trōthē'kā) *n.* [Gk. *sperma*, seed; *kalyptra*, covering; *theke*, case.] The head-cap of a spermatozoon.

spermiogenesis (spēr'miōjēn'ēsīs) *n.* [Gk. *sperma*, seed; *genesis*, origin.] Development of spermatozoon from spermatid; spermioteleosis, spermateliosis; spermatogenesis, *q.v.*

spermism (spēr'mīzm) *n.* [Gk. *sperma*, seed.] Theory held by spermists or animalculists that embryo is derived from spermatozoon alone.

spermium (spēr'miūm) *n.* [Gk. *sperma*, seed.] Spermatozoon.

spermoblast (spēr'mōblāst) *n.* [Gk. *sperma*, seed; *blastos*, bud.] A spermatid; spermatoblast.

spermocarp (spēr'mōkārṑ) *n.* [Gk. *sperma*, seed; *karpōs*, fruit.] An oogonium after fertilisation.

spermocentre (spēr'mōsēn'tēr) *n.* [Gk. *sperma*, seed; *L. centrum*, a centre.] The male centrosome during fertilisation.

spermoderm (spēr'mōdērm) *n.* [Gk. *sperma*, seed; *derma*, skin.] The seed coat, consisting of inner tegmen and outer testa; episperm.

spermoduct,—spermaduct, *q.v.*

spermogenesis,—spermatogenesis.

spermogoniferous (spēr'mōgōnīf'ērūs) *a.* [Gk. *sperma*, seed; *gonos*, offspring; *L. ferre*, to carry.] Having spermogonia.

spermogonium (spēr'mōgō'niūm) *n.* [Gk. *sperma*, seed; *gonos*, generation.] A capsule containing spermatia, in certain fungi and lichens.

spermogonous (spēr'mōgō'nūs) *a.* [Gk. *sperma*, seed; *gonos*, offspring.] Like or *pert.* a spermogonium.

spermology (spēr'mōl'ōji) *n.* [Gk. *sperma*, seed; *logos*, discourse.] The study of seeds.

spermophyte,—spermatophyte.

spermotheca (spēr'mōthē'kā) *n.* [Gk. *sperma*, seed; *theke*, case.] A chamber for storing sperms received in copulation; spermatheca, *q.v.*

spermotype (spēr'mōtīp) *n.* [Gk. *sperma*, seed; *typos*, pattern.] A plant specimen grown from seed of a type plant.

spermozeugma (spēr'mōzūg'mā) *n.* [Gk. *sperma*, seed; *zeugma*, bond.] A mass of regularly aggregated spermatozoa, for delivery into a spermatheca.

sphacelate (sfās'ēlāt) *a.* [Gk. *sphakelos*, gangrene.] Decayed; withered; mortified.

sphacelia (sfāsē'liā) *n.* [Gk. *sphakelos*, gangrene.] Conidial or honey-dew stage in development of fungus, producing sclerotium or ergot.

sphaer-,—*also* spher-.

sphaeraphides (sfērāf'idēz) *n. plu.*

[Gk. *sphaira*, globe; *raphis*, needle.] Conglomerate raphides: globular clusters of minute crystals in plant cells; cluster crystals.

sphaerenchyma (sfērēng'kimā) *n.*

[Gk. *sphaira*, globe; *engchyma*, juice.] Tissue of spherical cells.

sphaeridia (sfērīd'ia) *n. plu.* [Gk.

sphaira, globe; *idion*, *dim.*] Small rounded bodies, probably balancing organs, found on echinoderms.

sphaeroid (sfē'roid) *a.* [Gk. *sphaira*,

globe; *eidōs*, form.] Globular, ellipso'dal, or cylindrical; *appl.* an aggregate of individual protozoa; *appl.* a dilated hyphal cell containing oil-droplets, in lichens.

sphaeroplast (sfērōplāst) *n.* [Gk.

sphaira, globe; *plastōs*, formed.] A bioblast; a hypothetical unit, *q.v.*; spheroplast.

sphagnicolous (sfāgnik'ölūs) *a.* [Gk.

sphagnos, moss; *L. colere*, to inhabit.] Inhabiting peat mosses.

sphagnous (sfāg'nūs) *a.* [Gk. *sphag-*

nos, moss.] *Pert.* peat moss.

sphenethmoid (sfēnēth'moid) *n.* [Gk.

sphen, wedge; *ethmos*, sieve; *eidōs*, form.] Single bone replacing orbito-sphenoids in Anura; girdle-bone.

spheno-ethmoidal (sfē'nōēthmoid'-

āl) *a.* [Gk. *sphen*, wedge; *ethmos*, sieve; *eidōs*, form.] *Pert.* or in region of sphenoid and ethmoid; *appl.* a recess above superior nasal concha, and a suture.

sphenofrontal (sfē'nōfrūn'tāl) *a.* [Gk.

sphen, wedge; *L. frons*, forehead.] *Pert.* sphenoid and frontal bones; *appl.* a suture.

sphenoid (sfē'noid) *n.* [Gk. *sphen*,

wedge; *eidōs*, form.] A basal compound skull bone of some vertebrates; 'butterfly' bone. *a.* Wedge-shaped; cuneate, cuneiform.

sphenoidal (sfēnoid'āl) *a.* [Gk.

sphen, wedge; *eidōs*, form.] Wedge-shaped; *pert.* or in region of sphenoid; *appl.* fissure, processes, nostrum, sinus.

sphenolateral (sfēn'ölāt'ērāl) *n.* [Gk.

sphen, wedge; *L. latus*, side.]

One of a dorsal pair of cartilages parallel to trabeculae; pleuro-sphenoid.

sphenomandibular (sfē'nōmāndih'-

ūlār) *a.* [Gk. *sphen*, wedge; *L. mandibulum*, jaw.] *Pert.* sphenoid and mandible; *appl.* ligament.

sphenomaxillary (sfē'nōmāksil'ārī)

a. [Gk. *sphen*, wedge; *maxilla*, jaw.] *Pert.* sphenoid and maxilla; *appl.* fissure and (pterygopalatine) fossa.

sphenopalatine (sfē'nōpāl'ātīn) *a.*

[Gk. *sphen*, wedge; *L. palatus*, palate.] *Pert.* sphenoid and palatine; *appl.* artery, foramen, nerves; *appl.* ganglion: the pterygopalatine ganglion.

sphenoparietal (sfē'nōpārī'ētāl) *a.*

[Gk. *sphen*, wedge; *L. paries*, wall.] *Pert.* sphenoid and parietal; *appl.* a cranial suture.

sphenopterygoid (sfē'nōtēr'igoid,

-ptēr-) *a.* [Gk. *sphen*, wedge; *pteryx*, wing; *eidōs*, form.] *Pert.* sphenoid and pterygoid; *appl.* mucous pharyngeal glands near openings of Eustachian tubes, as in birds.

sphenosquamosal (sfē'nōskwāmō'-

sāl) *a.* [Gk. *sphen*, wedge; *L. squama*, scale.] *Appl.* cranial suture between sphenoid and squamosal.

sphenotic (sfēnōt'ik) *n.* [Gk. *sphen*,

wedge; *ous*, ear.] Post-frontal cranial bone of many fishes.

sphenoturbinal (sfē'nōtūr'bināl) *n.*

[Gk. *sphen*, wedge; *L. turbo*, whirl.] Laminar process of sphenoid.

sphenozygomatic (sfē'nōzig'ōmātik)

a. [Gk. *sphen*, wedge; *zygoma*, *zygon*, cross-bar.] *Appl.* cranial suture between sphenoid and zygomatic.

spher-,—*also* sphaer-.

sphaeraster (sfērās'tēr) *n.* [Gk.

sphaira, globe; *aster*, star.] A many-rayed globular spicule.

sphere-crystals,—sphaeraphides.

spheridium (sfērīd'ium) *n.* [Gk.

sphaira, globe; *idion*, *dim.*] A

spherical apothecium or capitulum in certain lichens. *Plu.* spheridia.

spheroidal (sfērōid'āl) *a.* [Gk. *sphaira*, globe; *eidos*, form.] Globular but not perfectly spherical; *appl.* glandular epithelium.

spheroidocyte (sfērōid'ōsit) *n.* [Gk. *sphaira*, globe; *eidos*, form; *kytos*, hollow.] A type of blood-cell or haemocyte in insects.

spherome (sfērōm) *n.* [Gk. *sphairōmen*, made globular.] Cell inclusions producing oil or fat globules; intracellular fatty globules as a whole.

spheromere (sfērōmēr) *n.* [Gk. *sphaira*, globe; *meros*, part.] A segment of a radiate animal.

spheroplasts (sfērōplāsts) *n. plu.* [Gk. *sphaira*, globe; *plastos*, formed.] Chondriosomes; bioblasts; bodies found among granulations of protoplasm.

spherula (sfēr'ulā) *n.* [L. *sphaerula*, small globe.] A spherule or small sphere; a small spherical spicule.

spherulate (sfēr'ulāt) *a.* [L. *sphaerula*, small globe.] Covered with small spheres.

sphincter (sfing'ktēr) *n.* [Gk. *sphinggein*, to bind tight.] A muscle which contracts or closes an orifice, as that of bladder, mouth, anus, vagina, etc.

sphragidal (sfrā'jidāl) *a.* [Gk. *sphragis*, seal.] *Appl.* plastic fluid secreted by tubular glands opening into vesiculae seminales in male Lepidoptera and forming a sphragis.

sphragis (sfrā'jis) *n.* [Gk. *sphragis*, seal.] A structure sealing bursa copulatrix on female abdomen of certain Lepidoptera after pairing, and consisting of hardened sphragidal fluid.

sphygmie (sfīg'mik) *a.* [Gk. *sphygmos*, pulse.] *Pert.* pulse; *appl.* second phase of systole.

sphygmoid (sfīg'moid) *a.* [Gk. *sphygmos*, pulse; *eidos*, form.] Pulsating; like a pulse.

sphygmus (sfīg'mūs) *n.* [Gk. *sphygmos*, pulse.] The pulse.

spica (spī'kā) *n.* [L. *spica*, spike.] Spike; calcar of birds.

spicate (spī'kāt) *a.* [L. *spica*, spike.] Spiked; arranged in spikes, as an inflorescence; bearing spikes; with spur-like prominence; spiciferous, spiciform, spicigerous.

spicose (spī'kōs) *a.* [L. *spica*, spike.] With spikes or ears, as corn.

spicula (spīk'ulā) *n.* [L. *spicula*, small spike.] A small spike; a needle-like body; *plu.* of spiculum.

spicular (spīk'ulār) *a.* [L. *spicula*, small spike.] *Pert.* or like a spicule.

spiculate (spīk'ulāt) *a.* [L. *spicula*, small spike.] Set with spicules; divided into small spikes.

spicule (spīk'ul) *n.* [L. *spicula*, small spike.] A minute needle-like body, siliceous or calcareous, found in invertebrates; a minute pointed process.

spiculiferous (spīkūlīf'ērūs) *a.* [L. *spicula*, small spike; *ferre*, to carry.] Furnished with or protected by spicules; spiculigenous, spiculigerous, spiculose.

spiculiform (spīk'ulīfōrm) *a.* [L. *spicula*, small spike; *forma*, shape.] Spicule-shaped.

spiculum (spīk'ulūm) *n.* [L. *spiculum*, a dart.] A spicular structure; the dart of a snail.

spider cells,—neuroglia cells with numerous plasmatic and/or fibrillar processes; astrocytes, astroglia, macroglia.

Spigelian (spīgē'liān) *a.* [*A. van den Spieghel* or *Spigelius*, Flemish anatomist.] *Appl.* a small lobe of liver, originally named lobus exiguus, in mammals; *appl.* caudate lobe.

spigots (spīg'ōts) *n. plu.* [L. *spica*, spike.] Conical spinning tubes, in spiders.

spike (spīk) *n.* [L. *spica*, spike, ear of corn.] Inflorescence with sessile flowers along axis.

spikelet (spīk'lēt) *n.* [L. *spica*, spike.] A secondary spike of grasses, bearing few flowers; locusta.

spina (spī'nā) *n.* [L. *spina*, spine.] A spine; median apodeme behind furca, as in many Orthoptera.

spinal (spí'nál) *a.* [L. *spina*, spine.] *Pert.* backbone, or spinal cord; *appl.* foramen, ganglion, nerves, etc.

spinal canal,—vertebral canal containing spinal cord.

spinal cord,—nervous tissue contained in spinal or vertebral canal; medulla spinalis.

spinalis (spínāl'is) *n.* [L. *spina*, spine.] Name given to muscles connecting vertebrae.

spinasternum (spí'nāstēr'nūm) *n.* [L. *spina*, thorn; *sternum*, breast-bone.] An intersegmental sternal sclerite or poststernellum with an internal spine, in certain insects.

spinate (spí'nāt) *a.* [L. *spina*, thorn.] Spine - shaped; spine - bearing; spiniferous, spinigerous.

spination (spínā'shūn) *n.* [L. *spina*, thorn.] The occurrence, development, or arrangement of spines.

spindle (spín'dl) *n.* [A.S. *spinnan*, to spin.] A structure resembling a spinning - machine spindle; an elongated peduncle bearing sessile flowers; a structure formed of achromatin fibres during mitosis; a muscle-spindle, *q.v.*; fuseau, *q.v.*

spindle-fibre locus,—centrosome, *q.v.*

spine (spín) *n.* [L. *spina*, spine.] A sharp-pointed process on leaves, bones, echinoids, porcupines; the backbone or vertebral column; pointed process of vertebra; scapular ridge; fin-ray.

spinescent (spínēs'ēnt) *a.* [L. *spinescere*, to become spiny.] Tapering; tending to become spiny.

spiniferous (spínif'ērūs) *a.* [L. *spina*, spine; *ferre*, to carry.] Spine-bearing; *appl.* pads on ventral side of distal end of leg in Peripatus; spinate, spinigerous.

spiniform (spí'nifōrm) *a.* [L. *spina*, spine; *forma*, shape.] Spine-shaped.

spinisternite (spí'nistēr'nīt) *n.* [L. *spina*, spine; *sternum*, breast-bone.] A small sternite with spiniform apodema, between thoracic segments of insects.

spinneret (spín'ērēt) *n.* [A.S.

spinnan, to spin.] One of organs perforated by tubes connected with glands secreting liquid silk, in spiders; one of organs preparing material for puparia, as in Coccidae.

spinnerule (spín'ērül) *n.* [A.S. *spinnan*, to spin.] A tube discharging silk secretion of spiders.

spinning glands,—glands which secrete material for webs in spiders, and for cocoons in caterpillars.

spino-occipital (spí'nōöksip'itāl) *a.* [L. *spina*, spine; *occiput*, back of head.] *Appl.* nerves arising in trunk somites which later form part of the skull.

spinose (spí'nōs) *a.* [L. *spinus*, prickly.] Bearing many spines.

spinous (spí'nūs) *a.* [L. *spina*, spine.] Spiny; spine-like; *appl.* plane of body.

spinous process,—median dorsal spinelike process of vertebra; a process of sphenoid; a process between articular surfaces of proximal end of tibia.

spinulate (spín'ūlāt) *a.* [L. *spinula*, small spine.] Covered with small spines.

spinulation (spínulā'shūn) *n.* [L. *spinula*, small spine.] A defensive spiny covering; state of being spinulate.

spinule (spín'ul) *n.* [L. *spinula*, small spine.] A small spine.

spinulescent (spínulēs'ēnt) *a.* [L. *spinula*, small spine.] Tending to be spiny.

spinuliferous (spínulif'ērūs) *a.* [L. *spinula*, small spine; *ferre*, to bear.] Bearing small spines; spinulose, spinulous.

spiny-finned,—bearing fins with spiny rays for support.

spiny-rayed,—*appl.* fins supported by spiny rays.

spiracle (spír'ākl) *n.* [L. *spiraculum*, air-hole.] First pharyngeal aperture or visceral cleft; branchial passage between mandibular and hyoid arches in fishes; lateral branchial opening in tadpoles; nasal aperture of Cetacea; respiratory aperture behind eye of

- skates and rays; breathing aperture of insects; aperture of book lungs; any of five openings round mouth of Blastoidea; spiraculum.
- spiracular** (spīrāk'ūlār) *a.* [L. *spiraculum*, air-hole.] *Pert.* a spiracle.
- spiraculate** (spīrāk'ūlāt) *a.* [L. *spiraculum*, air-hole.] Having spiracles; spiraculiferous.
- spiraculiform** (spīrāk'ūlīfōrm) *a.* [L. *spiraculum*, air-hole; *forma*, shape.] Spiracle-shaped.
- spiraculum**,—spiracle, *q.v.*
- spiral** (spī'rāl) *a.* [L. *spira*, coil.] Winding, like a screw; *appl.* leaves alternately placed; *appl.* flower with spirally inserted parts; *appl.* thickening of cell-wall; *appl.* chromatids and chromosomes. *n.* A coiled structure; coil of the chromosome thread in mitosis and meiosis; *cf.* internal, relational, relic spiral.
- spiral cleavage**,—cleavage into unequal parts, arranged in mosaic fashion and interlocking, upper cells rotating to right to alternate with lower; oblique or alternating cleavage.
- spiral valve**,—in fishes, except teleosts, a spiral infolding of intestine wall; of Heister, folds of mucous membrane in neck of gall-bladder.
- spiral vessels**,—first xylem elements of a stele, spiral fibres coiled up inside tubes and so adapted for rapid elongation.
- spiralia** (spīrā'liā) *n. plu.* [L. *spira*, coil.] Coiled structures supported by crura, in certain brachiopods.
- spiranthy** (spīrān'thī) *n.* [Gk. *speira*, coil; *anthos*, flower.] Displacement of flower parts through twisting.
- spiraster** (spīrās'tēr) *n.* [L. *spira*, coil; *aster*, star.] A spiral and rayed sponge spicule.
- spire** (spīr) *n.* [L. *spira*, coil.] Totality of whorls of a spiral shell.
- spireme** (spī'rēm) *n.* [Gk. *speirema*, coil.] Thread-like appearance of nuclear chromatin during prophase of mitosis.
- spiricles** (spīr'iklz) *n. plu.* [L. *spira*, coil.] Thin, coiled, thread-like outgrowths of some seed-coats.
- spiriferous** (spīrif'ērūs) *a.* [L. *spira*, coil; *ferre*, to bear.] Having a spiral structure.
- spirillar** (spīril'ār) *a.* [L. *spirillum*, small coil.] *Pert.* or resembling a spirillum.
- spirillum** (spīril'üm) *n.* [L. *spirillum*, small coil.] A thread-like curved bacterium; a motile filament in a cryptogam antheridium.
- spirivalve** (spī'rivālv) *n.* [L. *spira*, coil; *valvae*, folding doors.] A gastropod with spiral shell.
- spiroid** (spī'roid) *a.* [Gk. *speira*, coil; *eidos*, form.] Spirally formed.
- spironeme** (spī'rōnēm) *n.* [Gk. *speira*, coil; *nema*, thread.] Coiling thread in infusorian stalk.
- spirulate** (spīr'ūlāt) *a.* [L. *spira*, coil.] *Appl.* any spiral structure or coiled arrangement.
- splanchnic** (splāngk'nīk) *a.* [Gk. *splanchnon*, entrail.] *Pert.* viscera; *appl.* nerves.
- splanchnocoel** (splāngk'nōsēl) *n.* [Gk. *splanchnon*, entrail; *kōilos*, hollow.] The cavity of lateral plates of embryo, persisting as visceral cavity of adult.
- splanchnocranium**,—viscerocranium, *q.v.*
- splanchnology** (splāngknōl'ōjī) *n.* [Gk. *splanchnon*, entrail; *logos*, discourse.] The branch of anatomy dealing with viscera.
- splanchnopleure** (splāngk'nōploor) *n.* [Gk. *splanchnon*, entrail; *pleura*, side.] Inner layer of mesoblast, applied to viscera.
- spleen** (splēn) *n.* [Gk. *splen*, spleen.] A vascular organ in which lymphocytes are produced and red blood corpuscles destroyed, in vertebrates; lien.
- splenetic** (splēnēt'ik) *a.* [Gk. *splen*, spleen.] *Pert.* the spleen.
- splénial** (splē'niāl) *a.* [L. *splenium*, a patch.] *Pert.* splenius muscle, or splénial bone.

splénial bone,—membrane bone in lower jaw of some vertebrates.

splenic (splē'ník) *a.* [Gk. *splen*, spleen.] *Pert.* the spleen.

splenic nodules,—splenic corpuscles, Malpighian bodies, *q.v.*

splenium (splē'nium) *n.* [L. *splenium*, patch.] Posterior border of corpus callosum.

splenius (splē'nīūs) *n.* [L. *splenium*, patch.] Muscle of upper dorsal region and back of neck.

splenoocyte (splē'nōsīt) *n.* [Gk. *splen*, spleen; *kytos*, hollow.] A large monocyte believed to originate in spleen; endothelial leucocyte; a large mononuclear leucocyte.

splenophrenic (splē'nōfrēn'ík) *a.* [Gk. *splen*, spleen; *phren*, midriff.] *Pert.* spleen and diaphragm.

spondyl (spōn'dil) *n.* [Gk. *sphondylos*, vertebra.] A vertebra; spondyle.

spondylous (spōn'dilūs) *a.* [Gk. *sphondylos*, vertebra.] Vertebral.

spondylus (spōn'dilūs) *n.* [Gk. *sphondylos*, vertebra.] A spondyl or vertebra.

spongiocol (spūnjik'ölūs) *a.* [L. *spongia*, sponge; *colere*, to inhabit.] Living in sponges.

spongin (spūn'jin) *n.* [L. *spongia*, sponge.] Material of skeletal fibres of horny sponges.

sponginblast (spūn'jinbläst) *n.* [L. *spongia*, sponge; Gk. *blastos*, bud.] A spongin-producing cell.

spongioblasts (spūn'jiöblästs) *n. plu.* [Gk. *sponggia*, sponge; *blastos*, bud.] Embryonic epithelial cells which give rise to neuroglia cells and fibres radiating to periphery of spinal cord.

spongiocoel (spūn'jiösēl) *n.* [Gk. *spongia*, sponge; *koilos*, hollow.] The cavity, or system of cavities, in sponges.

spongiocyte (spūn'jiösīt) *n.* [Gk. *sponggia*, sponge; *kytos*, hollow.] A vacuolated cell of zona fasciculata of adrenal cortex.

spongioplasm (spūn'jiöplāzm) *n.* [Gk. *sponggia*, sponge; *plasma*, mould.] Cytoplasmic threadwork of a cell; cytoreticulum; mitomes.

spongiose (spōn'jiōs) *a.* [L. *spongia*, sponge.] Of a spongy texture; spongioid; full of small cavities.

spongoblast,—sponginblast, *q.v.*

spongophare (spōng'gōfär) *n.* [Gk. *sponggos*, sponge; *pherein*, to bear.] The upper chamber-bearing part of a sponge; *cf.* hypophare.

spongophyll (spōng'gōfil) *n.* [Gk. *sponggos*, sponge; *phyllon*, leaf.] A leaf having spongy parenchyma, without palisade tissue, between upper and lower epidermis, as in certain aquatics.

spongy (spūn'ji) *a.* [L. *spongia*, sponge.] Of open texture; lacunar; *appl.* parenchyma of mesophyll; *appl.* tissue surrounding embryo sac, as in gymnosperms.

spontaneous generation,—abiogenesis, *q.v.*

spoon,—small sclerite at base of balancers in Diptera; pinion or tegula.

sporabola (spöräb'ölä) *n.* [Gk. *sporos*, seed; *bolos*, a throw.] The trajectory of a spore discharged from a sterigma.

sporadic (spöräd'ík) *a.* [Gk. *sporadikos*, scattered.] *Appl.* plants confined to limited localities.

sporadin (spöräd'in) *n.* [Gk. *sporaden*, scattered about.] Trophozoite of gregarines moving about in lumen of gut.

sporange,—sporangium.

sporangia,—*plu.* of sporangium.

sporangial (spörän'jiäl) *a.* [Gk. *sporos*, seed; *angeion*, vessel.] *Pert.* a sporangium.

sporangiferous (spörän'jif'erūs) *n.* [Gk. *sporos*, seed; *angeion*, vessel; L. *ferre*, to bear.] Sporangia-bearing.

sporangiform (spörän'jiförm) *a.* [Gk. *sporos*, seed; *angeion*, vessel; L. *forma*, shape.] Sporangiod; like a sporangium.

sporangiocarp (spörän'jiökârp) *n.* [Gk. *sporos*, seed; *angeion*, vessel; *karpōs*, fruit.] An enclosed collection of sporangia; a structure of asci and sterile hyphae surrounded by a peridium; an ascocarp.

sporangiolum (spörän'jiölüm) *n.*

[Gk. *sporos*, seed; *angeion*, vessel.]

A secondary or small few-spored sporangium; modified tip in arbusculae; pytosome; sporangiole.

sporangiophore (spörän'jiöför) *n.*

[Gk. *sporos*, seed; *angeion*, vessel; *pherein*, to bear.] A stalk-like structure bearing sporangia.

sporangiosorus (spörän'jiösör'rus) *n.*

[Gk. *sporos*, seed; *angeion*, vessel; *soros*, heap.] A compact group of sporangia.

sporangiospore (spörän'jiöspör) *n.*

[Gk. *sporos*, seed; *angeion*, vessel; *sporos*.] A sporangium spore.

sporangium (spörän'jiüm) *n.* [Gk.

sporos, seed; *angeion*, vessel.] A spore-case, capsule, or cell in which spores are produced.

spore (spör) *n.* [Gk. *sporos*, seed.]

A highly specialised reproductive cell of plants; a resistant dormant form of certain bacteria; a falci-form cell of Sporozoa.

spore formation, — reproduction by

encystation followed by division and free-cell liberation; endogenous multiplication; sporogony, sporogenesis, sporulation.

spore group,—compound spore or sporoderm.

spore mother-cells,—sixteen cells

produced by repeated division of an archesporium, each in turn dividing into four spores; sporoblasts.

sporetia (spörē'tiä, -shiä) *n. plu.*

[Gk. *sporos*, seed.] Idiochromidia; chromidia of generative chromatin.

sporidism,—sporoderm.

sporidiferous (spör'idif'erüs) *a.* [Gk.

sporos, seed; L. *ferre*, to bear.] Sporidia-bearing.

sporidiol (spör'idiol) *n.* [Gk. *sporos*,

seed.] A protobasidium; a sporidium arising from promycelium, in rusts; sporidiolum.

sporidium (spör'idium) *n.* [Gk.

sporos, seed; *idion*, dim.] Conidium developed by abstriction from gonidiophore in fungi; ascospore; basidiospore.

sporidochium (spör'idöki'üm) *n.*

[Gk. *sporos*, seed; *dacheion*, holder.]

Receptacle of certain fungi; *cf.*

sporodochium.

sporiferous (spörif'erüs) *a.* [Gk.

sporos, seed; L. *ferre*, to bear.] Spore-bearing.

sporification (spör'ifikä'shün) *n.*

[Gk. *sporos*, seed; L. *facere*, to make.] Formation of spores.

sporiparity (spör'ipär'iti) *n.* [Gk.

sporos, seed; L. *parere*, to beget.] Reproduction by spore formation.

sporiparous (spör'ipär'üs) *a.* [Gk.

sporos, seed; L. *parere*, to beget.] Reproducing by spore formation.

sporoblast (spör'öbläst) *n.* [Gk.

sporos, seed; *blastos*, bud.] An archespore; a stage in spore formation, a sporoblast giving rise to spores, and these to sporozoites.

sporocarp (spör'ökärp) *n.* [Gk.

sporos, seed; *karpös*, fruit.] An ascocarp; a structure formed from archicarp and investing hyphae, enclosing spored asci; a sorus covered by indusium.

sporocladium (spör'öklädē'üm, -klä-

dium) *n.* [Gk. *sporos*, seed; *kladion*, small young branch.]

Branch of a conidiophore, bearing sporangia or conidia.

sporocyst (spör'ösist) *n.* [Gk. *sporos*,

seed; *kystis*, bladder.] A stage in spore formation preceding liberation of spores, or protective envelope of a spore, in protozoa; encysted embryo stage of trematode after degeneration following entry into intermediate host.

sporocystid (spör'ösist'id) *a.* [Gk.

sporos, seed; *kystis*, bladder; *eidös*, form.] *Appl.* oocyst of Sporozoa when the zygote forms sporocysts.

sporocyte (spör'ösit) *n.* [Gk. *sporos*,

seed; *kytos*, hollow.] A spore mother-cell.

sporoderm (spör'ödēzm) *n.* [Gk.

sporos, seed; *desmos*, bond.] A compound spore in which each cell can germinate independently; multilocular or septate or pluricellular spore, spore group, sporidism.

sporodochium (spōr'ōdōkī'ūm) *n.*

[Gk. *sporos*, seed; *docheion*, holder.]

A hemispherical aggregate of conidiophores; *cf.* sporidochium.

sporoduct (spōr'ōdūkt) *n.* [Gk.

sporos, seed; L. *ducere*, to lead.]

A special apparatus for dissemination of spores of Sporozoa and of some Fungi.

sporogenesis,—spore formation, *q.v.*

sporogenous (spōrōj'ēnūs) *a.* [Gk.

sporos, seed; *gennaein*, to produce.]

Spore-producing; sporiparous.

sporogonial (spōrōgō'nīāl) *a.* [Gk.

sporos, seed; *gonos*, offspring.]

Pert. a sporogonium.

sporogonium (spōrōgō'nīūm) *n.* [Gk.

sporos, seed; *gonos*, offspring.]

A structure developed from a fertilised oosphere of an archegonium, giving rise to asexual spores, in mosses.

sporogony (spōrōg'ōnī) *n.* [Gk.

sporos, seed; *gonos*, birth.]

Spore-formation; sporogenesis.

sporoid (spō'roid) *a.* [Gk. *sporos*,

seed; *eidōs*, like.]

Like a spore.

sporokinete (spōr'ōkinēt') *n.* [Gk.

sporos, seed; *kinein*, to move.]

A motile spore from the oocyst of certain Haemosporidia.

sporont (spōrōnt) *n.* [Gk. *sporos*,

seed; *on*, being.]

Gametocyte stage in life-history of Sporozoa.

sporophore (spōr'ōfōr) *n.* [Gk.

sporos, seed; *pherein*, to bear.]

A spore-bearing structure, in fungi; an inflorescence; process of plasmodium producing spores on free surface, in Mycetozoa.

sporophydium (spōrōfid'ūm) *n.*

[Gk. *sporos*, seed; *phyas*, shoot;

idion, *dim.*] The sporangium of certain thallophytes.

sporophyll (spōr'ōfil) *n.* [Gk. *sporos*,

seed; *phyllon*, leaf.]

A sporangium-bearing leaf.

sporophyte (spōr'ōfit) *n.* [Gk. *sporos*,

seed; *phyton*, plant.]

A stem covered with sporophylls or leaves, each bearing a sporangium, in ferns; the diploid spore-producing phase in alternation of plant generations. *Opp.* gametophyte.

sporoplasm (spōr'ōplāzm) *n.* [Gk.

sporos, seed; *plasma*, mould.]

Sporozoite, binucleate amoebula, or central part of a spore.

sporosac (spōr'ōsāk) *n.* [Gk. *sporos*,

seed; L. *saccus*, sack.]

An ovoid pouch-like body, consisting of a gonad, a degraded reproductive zooid of a medusoid colony.

sporotamium (spōr'ōtāmī'ūm) *n.*

[Gk. *sporos*, seed; *tamieion*, store.]

Cell-layer beneath apothecium, as in lichens.

sporozoid (spōrōzō'id) *n.* [Gk. *sporos*,

seed; *zoon*, animal; *eidōs*,

form.]

A motile spore; zoospore.

sporozoite (spōrōzō'it) *n.* [Gk.

sporos, seed; *zoon*, animal.]

Spore liberated through dissolving of membrane of sporocyst, a phase in life-history of Sporozoa.

sport,—a mutation, *q.v.*

sporulation (spōrūlā'shūn) *n.* [L.

sporula, small seed.]

Brood-formation by multiple cell-fission; spore-formation; liberation of spores.

spot fruit,—sorus, as of ferns.

spur (spūr) *n.* [A.S. *spora*, spur.]

A calcar; cog-tooth of malleus; rim

of sclera outside iridial angle;

cuticular outgrowth on legs of

certain insects; a process of a

petal or of a sepal, functioning as

a nectar receptacle; small repro-

ductive shoot; a brachyplast, *q.v.*

spuriae (spū'riē) *n. plu.* [L. *spurius*,

false.]

Feathers of alula or bastard

wing.

spurious (spū'riūs) *a.* [L. *spurius*,

false.]

Seemingly true but morphologically false; *appl.* dissepiment, fruit, teeth, vein, wing.

squama (skwā'mā) *n.* [L. *squama*,

scale.]

A squame or scale; a part

arranged like a scale; vertical part

of frontal bone; part of occipital

bone above and behind foramen

magnum; anterior and upper part

of temporal bone; antitegula or

calypteron, a scale below wing base,

of Diptera; a scale-like body

attached to second pedomere of

antenna of some Crustacea.

squamate (skwā'māt) *a.* [L. *squama*,

scale.]

Scaly.

squamation (skwāmā'shūn) *n.* [L. *squama*, scale.] Scale arrangement.

squame,—*squama*, *g.v.*

squamella (skwāmēl'ā) *n.* [*Dim.* of L. *squama*, scale.] A small scale or bract; a palea.

squamellate (skwāmēl'āt) *a.* [L. *squama*, a scale.] Having small scales or bracts; squamelliferous.

squamelliform (skwāmēl'fōrm) *a.* [L. *squama*, scale; *forma*, shape.] Resembling a squamella.

squamiferous (skwāmif'ērūs) *a.* [L. *squama*, scale; *ferre*, to bear.] Bearing scales; squamigerous.

squamiform (skwāmifōrm) *a.* [L. *squama*, scale; *forma*, shape.] Scale-like.

squamosal (skwāmō'sāl) *n.* [L. *squama*, scale.] A membrane bone of vertebrate skull forming part of posterior side wall.

squamose (skwā'mōs) *a.* [L. *squama*, scale.] Covered with scales; squamous.

squamous (skwā'mūs) *a.* [L. *squama*, scale.] *Appl.* simple epithelium of flat nucleated cells, scaly or pavement epithelium.

squamula (skwām'ulā) *n.* [L. *squama*, scale.] A squamule or small scale; minute membranous scale, or lodicule, in grasses; tegula of some insects; one of small circular areas into which pouch scales of *Gymnophiona* are divided.

squamulate (skwām'ulāt) *a.* [L. *squama*, scale.] Having minute scales; squamulose.

squamule,—*squamula*.

squarrose (skwōr'ōs) *a.* [L.L. *squarrosus*, scurfy.] Rough with projecting scales or rigid leaves.

squarrulose (skwōr'ulōs) *a.* [L.L. *squarrosus*, scurfy.] Tending to become squarrose.

stachyosporous (stākīōs'pōrūs) *a.* [Gk. *stachys*, ear of corn; *sporos*, seed.] Bearing sporangia on axis, as *Selaginella*; *cf.* *phyllosporous*.

stadium (stā'diūm) *n.* [L. *stare*, to stand.] A stage in development or life-history of plant or animal;

stade; interval between two successive ecdyses in insects.

stag-horned (stāg'hōrnd) *a.* [Icel. *stiga*, to mount; A.S. *horn*.] Having large branched mandibles, as a stag-beetle.

stagnicolous (stāgnīk'ölūs) *a.* [L. *stagnum*, standing water; *colere*, to inhabit.] Living or growing in stagnant water.

stalk-cell,—the barren cell of two into which the antheridial cell of gymnosperms divides; basal cell of crosier in *Discomycetes*.

stalk-eyed,—having eyes at end of a short stalk, as in some Crustacea, *opp.* sessile-eyed.

stamen (stā'mēn) *n.* [L. *stamen*, warp.] The male organ of a flower, consisting of stalk or filament with anther containing pollen.

staminal (stām'ināl) *a.* [L. *stamen*, warp.] *Pert.* a stamen.

staminate (stām'ināt) *a.* [L. *stamen*, warp.] Producing, or consisting of, stamens.

staminiferous (stāminif'ērūs) *a.* [L. *stamen*, warp; *ferre*, to bear.] Staminigerous; stamen-bearing.

staminode (stām'inōd) *n.* [L. *stamen*, warp; Gk. *eidos*, form.] A foliaceous scale-like body in some flowers, derived from a metamorphosed stamen; a rudimentary, imperfect, or sterile stamen; staminodium.

staminody (stām'inōdī) *n.* [L. *stamen*, warp; Gk. *eidos*, form.] Metamorphosis of flower organs into stamens.

standard (stānd'ārd) *n.* [O.F. *estandard*, from L. *stare*, to stand.] The vexillum or upper petal in Papilionaceae; a tree or shrub not supported by a wall.

stapedius (stāpē'diūs) *n.* [L.L. *stapes*, stirrup.] A muscle pulling the head of the stapes.

stapes (stā'pēz) *n.* [L.L. *stapes*, stirrup.] Stirrup-shaped innermost bone of middle ear; operculum or internal end of columella auris, fitting into and filling fenestra ovalis in amphibians.

staphyle (stáf'ilē) *n.* [Gk. *staphyle*, bunch of grapes.] Uvula.

starch (stārch) *n.* [A.S. *stearc*, stiff.] The common carbohydrate formed by plants and stored in seeds; ($C_6H_{10}O_5$)_{*n*}.

starch sheath,—endodermis with starch grains.

stasimorphy (stās'ímôr'fi) *n.* [Gk. *stasis*, standing; *morphe*, form.] A deviation in form due to arrested development.

stasis (stā'sis) *n.* [Gk. *stasis*, standing.] Stoppage, or retardation, as of growth, or of movement of animal fluids.

stathmokinesis (stāth'mōkīnē'sis) *n.* [Gk. *stathmos*, station; *kinesis*, movement.] Inhibition of cell division, as by colchicine or other agent.

static (stāt'ik) *a.* [Gk. *statikos*, causing to stand.] *Pert.* system at rest or in equilibrium; *appl.* postural reactions; *opp.* kinetic; *appl.* proprioceptors, as otoliths and semicircular canals.

stato-acoustic (stāt'ōākoo'stik) *a.* [Gk. *statos*, standing; *akouein*, to hear.] *Pert.* sense of balance and of hearing; *appl.* eighth cranial or acoustic nerve, dividing into vestibular and cochlear nerves.

statoblast (stāt'ōblāst) *n.* [Gk. *statos*, stationary; *blastos*, bud.] A specialised bud or 'winter-egg' of some Polyzoa, developed on funiculus and set free on death of parent organism.

statocone (stāt'ōkōn) *n.* [Gk. *statos*, stationary; *konis*, dust.] A minute structure contained in a statocyst.

statocyst (stāt'ōsist) *n.* [Gk. *statos*, stationary; *kystis*, bladder.] A vesicle of many invertebrates, with function of perception of position of body in space; a statocyte or geoperceptive cell containing statoliths.

statocyte (stāt'ōsit) *n.* [Gk. *statos*, stationary; *kytos*, hollow.] A cell containing statoliths.

statolith (stāt'ōlith) *n.* [Gk. *statos*, stationary; *lithos*, stone.] A struc-

ture of calcium carbonate, sand grain, or secreted substance, contained in a statocyst; a cell inclusion, as oil droplet, starch grain, crystal, which changes its intracellular position under the influence of gravity.

statorhabd (stāt'ōrābd) *n.* [Gk. *statos*, stationary; *rhabdos*, rod.] A short tentacular process carrying the statolith in Trachomedusae.

statospore (stāt'ōspōr) *n.* [Gk. *statos*, stationary; *sporos*, seed.] A resting spore.

staurophyll (stō'rōfill) *n.* [Gk. *stauros*, palisade; *phyllon*, leaf.] A leaf having palisade or other compact tissue throughout.

staurospore (stō'rōspōr) *n.* [Gk. *stauros*, cross; *sporos*, seed.] A cross-shaped or a triquetrous spore.

steapsin (stē'āpsin) *n.* [Gk. *stear*, tallow; *pepsis*, digestion.] A lipolytic enzyme of pancreatic juice.

stearin (stē'ārīn) *n.* [Gk. *stear*, tallow.] The solid part of fat, held dissolved by olein at body temperature; a component of many animal and vegetable fats.

steganopodous (stēgānōp'ōdūs) *a.* [Gk. *steganos*, covered; *pous*, foot.] Having feet completely webbed; totipalmate.

stege (stē'jē, stēg'ē) *n.* [Gk. *stege*, roof.] The inner layer of rods of Corti.

stegocarpous (stēg'ōkār'pūs) *a.* [Gk. *stegein*, to cover; *karpōs*, fruit.] Having a capsule with operculum and peristome; stegocarpic.

stegocrotaphic (stēg'ōkrōt'āfik) *a.* [Gk. *stege*, roof; *krotaphos*, the temples.] *Appl.* skull whose only gaps on dorsal surface are nares, orbits, and parietal foramen.

stelar parenchyma,—pith.

stelar system,—of plants, vascular and associated conjunctive tissue.

stele (stēlē) *n.* [Gk. *stele*, pillar.] A bulky strand or cylinder of vascular tissue contained in stem and root of plants, developed from plerome.

stellar,—stellate.

stellate (stél'ät) *a.* [L. *stella*, star.] Star-shaped; asteroid; radiating; *appl.* leaf, hair, spicule, cells of Kupffer, ganglion of sympathetic system, ligament of rib, veins beneath fibrous tunic of kidney, etc.

stellate reticulum,—enamel pulp of dental germ.

stelliform,—stellate, asteroid.

stelocytтарous (stē'lösit'ärüs) *a.* [Gk. *stèle*, pillar; *kyttaros*, honey-comb cell.] Building, or *pert.*, stalked combs, as of certain wasps; *cf.* phragmocytтарous.

stem (stém) *n.* [A.S. *stemn*, tree-stem.] Main axis of a plant.

stem body,—equatorial part of the spindle, as between two nuclei at telophase.

stem-cell,—a primordial germ-cell.

stemma (stēm'ä) *n.* [Gk. *stemma*, garland.] A simple eye or ocellus of arthropods; a lateral ocellus; an ocellus of an ommatidium.

stenobaric (stēn'öbär'ik) *a.* [Gk. *stenos*, narrow; *baros*, weight.] *Appl.* animals adaptable only to small differences in pressure or altitude; *cf.* eurybaric.

stenobathic (stēn'öbäth'ik) *a.* [Gk. *stenos*, narrow; *bathys*, deep.] Having a narrow vertical range of distribution, *opp.* eurybathic.

stenobenthic (stēn'öbēn'thik) *a.* [Gk. *stenos*, narrow; *benthos*, depth of the sea.] *Pert.*, or living within a narrow range of depth of the sea-bottom, *opp.* eurybenthic.

stenochoric (stēn'ökör'ik) *a.* [Gk. *stenos*, narrow; *choros*, place.] Having a narrow range of distribution.

stenocyst (stēn'ösist) *n.* [Gk. *stenos*, narrow; *kystis*, bladder.] One of the auxiliary cells in leaves of certain mosses.

stenoecious (stēnē'siūs) *a.* [Gk. *stenos*, narrow; *oikos*, abode.] Having a narrow range of habitat selection, *opp.* euryoecious.

stenohaline (stēn'öhäl'in) *a.* [Gk. *stenos*, narrow; *halinos*, saline.]

Appl. organisms adaptable to a narrow range of salinity, *opp.* euryhaline.

stenohygric (stēn'öhi'grik) *a.* [Gk. *stenos*, narrow; *hygros*, wet.] *Appl.* organisms adaptable to a narrow variation in atmospheric humidity.

stenomorphic (stēn'ömör'fik) *a.* [Gk. *stenos*, narrow; *morphe*, form.] Dwarfed; smaller than typical form, owing to cramped habitat.

stenonian duct,—Stensen's duct.

stenonotal (stēn'önö'täl) *a.* [Gk. *stenos*, narrow; *noton*, back.] With very small thorax, as worker insect.

stenopetalous (stēn'öpēt'älüs) *a.* [Gk. *stenos*, narrow; *petalon*, leaf.] With narrow petals.

stenophagous (stēnöf'ägüs) *a.* [Gk. *stenos*, narrow; *phagein*, to eat.] Subsisting on a limited variety of food, *opp.* euryphagous; *cf.* monophagous.

stenophyllous (stēn'öfil'üs) *a.* [Gk. *stenos*, narrow; *phyllon*, leaf.] Narrow-leaved.

stenopodium (stēn'öpō'diüm) *n.* [Gk. *stenos*, narrow; *pous*, foot.] A crustacean limb in which the protopodite bears distally both endopodite and exopodite.

stenosepalous (stēn'ösēp'älüs) *a.* [Gk. *stenos*, narrow; F. *sépale*, sepal.] With narrow sepals.

stenostomatous (stēn'östöm'ätüs) *a.* [Gk. *stenos*, narrow; *stoma*, mouth.] Narrow-mouthed.

stenothermic (stēn'öthēr'mik) *a.* [Gk. *stenos*, narrow; *therme*, heat.] *Appl.* organisms adaptable only to slight variations in temperature, *opp.* eurythermic.

stenotopic (stēn'ötöp'ik) *a.* [Gk. *stenos*, narrow; *topos*, place.] Having a restricted range of geographical distribution, *opp.* eurytopic.

stenotropic (stēn'ötröp'ik) *a.* [Gk. *stenos*, narrow; *trope*, turn.] Having a very limited adaptation to varied conditions.

Stensen's duct [*N. Stensen*, Danish physiologist]. Duct of the parotid gland.

stephanion (stěfăn'ïön) *n.* [Gk. *stephanos*, crown.] The point where superior temporal ridge is crossed by coronal suture.

steppe (stěp) *n.* [Russ. *step'*.] Xerophilous and generally treeless grassland; short-grass plains.

stercobilin (stěrköbíl'in) *n.* [L. *stercus*, dung; *bilis*, bile.] The brown pigment of faeces; urobilin; $C_{33}H_{42}O_6N_4$.

stercomarium (stěrkömä'rium) *n.* [L. *stercus*, dung.] The system of stercome - containing tubes of certain Sarcodina.

stercome (stěrköm) *n.* [L. *stercus*, dung.] Faecal matter of Sarcodina, in masses of brown granules.

stercoral (stěrköräl) *a.* [L. *stercus*, dung.] *Pert.* faeces; *appl.* a dorsal pocket or sac of proctodaeum in spiders.

stereid (stě'rěid) *n.* [Gk. *stereos*, solid; *eidōs*, form.] A lignified parenchyma cell with pit canals; stone cell, *q.v.*

stereid bundles,—bands or bundles of sclerenchymatous fibres.

stereoblastula (stě'rěöbläs'tulä) *n.* [Gk. *stereos*, solid; *blastos*, bud.] Abnormal form of echinoid larva unable to gastrulate.

stereocilia (stě'rěösil'lä) *n. plu.* [Gk. *stereos*, rigid; L. *cilium*, eyelash.] Non-motile secretory projections on epithelium of duct of epididymis.

stereognostic (stě'rěögnös'tik) *a.* [Gk. *stereos*, solid; L. *gnoscere*, to know.] *Appl.* sense which appreciates size, shape, weight.

stereokinesis (stě'rěökíně'sis) *n.* [Gk. *stereos*, solid; *kinesis*, movement.] Movement or inhibition of movement in response to contact stimuli; thigmotaxis.

stereome (stě'rěöm) *n.* [Gk. *stereoma*, solid body.] Sclerenchymatous and collenchymatous masses along with hardened parts of vascular bundles forming supporting tissue in plants; the thick-walled elongated cells of the central cylinder in mosses.

stereoplasm (stě'rěöpläzm) *n.* [Gk.

stereos, solid; *plasma*, mould.] The more solid part of protoplasm, *opp.* hygroplasm; a vesicular substance filling interseptal spaces of certain corals.

stereospondylous (stě'rěöspön'dilūs) *a.* [Gk. *stereos*, solid; *sphondylos*, vertebra.] Having vertebrae each fused into one piece; *cf.* temnospondylous.

stereotaxy (stě'rěötäk'si) *n.* [Gk. *stereos*, solid; *taxis*, arrangement.] The mechanical reaction to continuous contact with a solid.

stereotropism (stě'rěöt'röpizm) *n.* [Gk. *stereos*, solid; *trope*, turn.] Tendency of organisms to attach themselves to solid objects, or to live in crannies or tunnels, in total contact with solids; thigmotaxis.

sterigma (stěrig'mä) *n.* [Gk. *sterigma*, support.] A slender filament arising from basidium or conidiophore, and giving rise to spores by abstriction; flange- or rib-like part of a decurrent leaf, lying along the stem. *Plu.* sterigmata.

sterile (stě'rili) *a.* [L. *sterilis*, barren.] Incapable of propagation; aseptic; axenic, *q.v.*

sterilise (stě'r'iliz) *v.* [L. *sterilis*, barren.] To render incapable of reproduction, or of conveying infection.

sternal (stě'r'näl) *a.* [Gk. *sternon*, chest.] *Pert.* sternum, or sternite; *appl.* ribs united to sternum.

sternebrae (stě'r'něbrē) *n. plu.* [L. *sternum*, breast-bone; *ebra*, on analogy of vertebra.] Divisions of a segmented sternum or breast-bone.

sternellum (stěrněl'üm) *n.* [*Dim.* of L. *sternum*, breast-bone.] A sternal sclerite of insects; sclerite behind eusternum; poststernite.

sternite (stě'r'nit) *n.* [Gk. *sternon*, chest.] A ventral plate of an arthropod segment; a sternal sclerite.

sternobranchial (stě'r'nöbräng'kiäl) *a.* [L. *sternum*, breast-bone; *branchiae*, gills.] *Appl.* vessel conveying blood to gills, in certain Crustacea.

sternoclavicular (stēr'nōklāvīk'ulār) *a.* [L. *sternum*, breast - bone; *claviculum*, small key.] *Appl.* and *pert.* articulation between sternum and clavicle.

sternocostal (stēr'nōkōs'tāl) *a.* [L. *sternum*, breast-bone; *costa*, rib.] *Pert.* sternum and ribs; *appl.* ligament, surface of heart.

sternokleidomastoid (stēr'nōklī'dō-mās'toid) *a.* [Gk. *sternon*, chest; *kleis*, key; *mastos*, breast; *eidos*, form.] *Appl.* an oblique neck muscle stretching from sternum to mastoid process.

sternopleurite (stēr'noploo'rit) *n.* [Gk. *sternon*, chest; *pleura*, side.] Thoracic sclerite formed by union of episternum and sternum, in insects; sternopleuron.

sternoscapular (stēr'nōskāp'ulār) *a.* [L. *sternum*, breast-bone; *scapula*, shoulder-blade.] *Appl.* a muscle connecting sternum and scapula.

sternotribe (stēr'nōtrib) *a.* [Gk. *sternon*, chest; *tribein*, to rub.] *Appl.* flowers with fertilising elements so placed as to be brushed by sternites of visiting insects.

sternoxiphoid (stēr'nōzīf'oid) *a.* [Gk. *sternon*, chest; *xiphos*, sword; *eidos*, form.] *Appl.* plane through junction of sternum and xiphoid cartilage.

sternum (stēr'nūm) *n.* [L. *sternum*, breast-bone.] Breast-bone of vertebrates; ventral plate of typical arthropod segment; all the ventral sclerites of a thoracic segment in insects.

sterols (stēr'ōlz) *n. plu.* [Gk. *stereos*, solid; L. *oleum*, oil.] Alcohols (of a cyclic structure including the cyclopentenophenanthrene ring) found in plants and animals, and comprising the mycosterols, phyto-sterols, and zoosterols, *q.v.*

sterraster (stērās'tēr) *n.* [Gk. *sterros*, solid; *aster*, star.] Aster with actines soldered together by silica.

sterrula (stēr'ulā) *n.* [Gk. *sterros*, solid.] Solid free-swimming larva of Alcyonaria, preceding planula.

Stewart's organs,—five vesicles of coelom of lantern protruding into the perivisceral space and acting as internal gills in some Echinoidea.

stichic (stīk'ik) *a.* [Gk. *stichos*, row.] In a row parallel to long axis.

stichidium (stīkīd'iūm) *n.* [Gk. *stichos*, row; *idion*, dim.] A tetraspore receptacle of some algae.

stichochrome (stīk'ōkrōm) *a.* [Gk. *stichos*, row; *chroma*, colour.] With Nissl granules arranged in rows, as in motor neurones.

stigma (stīg'mā) *n.* [Gk. *stigma*, mark.] Portion of pistil which receives pollen; eye-spots of some protophyta and protozoa; an arthropod spiracle; apertures connected with tracheae of insects; coloured wing spot of certain butterflies and other insects; thickened area near apex of wing-membrane in dragon-flies; gill-slit of tunicates; spots or stomata formed as artefacts in walls of capillaries.

stigmata,—*plu.* of stigma.

stigmatic (stīgmāt'ik) *a.* [Gk. *stigma*, mark.] *Appl.* lid cell of an archegonium; *pert.* a stigma.

stigmatiferous (stīgmātīf'ērūs) *a.* [Gk. *stigma*, mark; L. *ferre*, to carry.] Stigma-bearing.

stigmatiform (stīg'mātīfōrm) *a.* [Gk. *stigma*, mark; L. *forma*, shape.] Resembling a stigma; stigmatoid.

stile(t),—*see* style(t).

stilt-roots,—buttress-roots, *q.v.*

stimulant (stīm'ulānt) *n.* [L. *stimulare*, to incite.] A stimulus-producing agent.

stimulation (stīm'ulā'shūn) *n.* [L. *stimulare*, to incite.] Excitation or irritation of an organism or part by external or internal influences.

stimulose (stīm'ulōs) *a.* [L. *stimulare*, to incite.] Furnished with stinging hairs or cells.

stimulus (stīm'ulūs) *n.* [L. *stimulus*, goad.] An agent which causes a reaction or change in an organism or in any of its parts; a stinging hair.

sting (stĭng) *n.* [A.S. *stingan*, to sting.] Stinging hair or cell; spine of sting-ray; offensive and defensive organ for piercing, also for inoculating with poison.

stipe (stip) *n.* [L. *stipes*, stalk.] The stem bearing pileus in agarics boletes, etc.; stalk of seaweeds; stem or caudex of palms and tree-ferns; stem of fern fronds; a stipes.

stipel (stī'pēl) *n.* [L. *stipes*, stalk.] An outgrowth of leaflets resembling the stipule of a leaf-base.

stipella (stīpēl'ă) *n.* [Dim. from L. *stipes*, stalk.] Stipule of a leaflet in a compound leaf.

stipellate (stī'pēlăt) *a.* [L. *stipes*, stalk.] Bearing stipels.

stipes (stī'pēz) *n.* [L. *stipes*, stalk.] Peduncle of a stalked eye; distal part of protopodite of first maxilla of insects, itself divided into eustipes and parastipes, and the eustipes further into dististipes, proxistipes and basistipes.

stipiform (stī'pifōrm) *a.* [L. *stipes*, stalk; *forma*, shape.] Resembling a stalk or stem.

stipitate (stīp'ităt) *a.* [L. *stipes*, stalk.] Stalked.

stipites (stīp'itēz) *n. plu.* [L. *stipes*, stalk.] *Plu.* of stipes; paired part, anterior to mentum, of gnathochilarium.

stipitiform,—stipiform.

stipular (stīp'ulăr) *a.* [L. *stipula*, small stalk.] Like, *pert.*, or growing in place of, stipules; stipellar.

stipulate (stīp'ulăt) *a.* [L. *stipula*, small stalk.] With stipules; stipuliferous.

stipule (stīp'ul) *n.* [L. *stipula*, small stalk.] One of two foliaceous or membranaceous processes developed at base of a leaf petiole, sometimes in tendril or spine form; paraphyll, *q.v.*

stipuliform (stīp'ulifōrm) *a.* [L. *stipula*, small stalk; *forma*, shape.] In the form of a stipule.

stipuloid (stīp'uloid) *n.* [L. *stipula*, small stalk; Gk. *eidos*, form.] A unicellular outgrowth from basal node of branches in Charophyta.

stirps (stērps) *n.* [L. *stirps*, stock.] The sum-total of germs or gemmules to be found in a newly fertilised ovum; stirp. *Plu.* stirpes.

stock (stŏk) *n.* [A.S. *stocc*, post.] Stem of tree or bush receiving bud, or scion, in grafting; a gilliflower; an asexual zooid which produces sexual zooids of one sex by gemmation, as in Polychaeta; live-stock.

stolon (stŏ'lŏn) *n.* [L. *stolo*, shoot.] A creeping stem or runner capable of developing rootlets and stem, and ultimately forming a new individual; a creeping hypha which can form aerial mycelium and rhizoids or haustoria; a cylindrical stem of some Polyzoa from which individuals grow out at intervals; a horizontal tubular branch of some coelenterates from which new zooids arise by budding; the cadophore and bud-forming ventral outgrowth of tunicates.

stolonate (stŏ'lŏnăt) *a.* [L. *stolo*, shoot.] Having stolons; resembling a stolon; developing from a stolon; *appl.* plants and animals which develop by means of stolons; stoloniferous.

stolotheca (stŏ'lŏthē'kā) *n.* [L. *stolo*, shoot; *theca*, case.] Theca budded from side of metascicula of graptolites, and producing buds of autotheca, bitheca, and a second stolotheca.

stoma (stŏ'mă) *n.*, **stomata** (stŏm'ătă) *plu.* [Gk. *stoma*, mouth.] A small orifice; minute openings, with guard cells, in epidermis of plants, especially on under surface of leaves, or, the stomatic pores only; apertures in endothelium of serous membranes; part of alimentary canal between mouth opening and oesophagus, in nematodes.

stomach (stŭm'ăk) *n.* [Gk. *stomachos*, throat, gullet.] Ventriculus; sac-like portion of food canal beyond gullet, in vertebrates; corresponding part, or entire digestive cavity, of invertebrates.

stomachic (stömāk'ík) *a.* [Gk. *stomachos*, gullet.] *Pert.* the stomach.

stomal,—*stomatal*.

stomata,—*plu.* of *stoma*.

stomatal (stöm'ätäl) *a.* [Gk. *stoma*, mouth.] *Pert.* or like a *stoma*; *stomatic*.

stomate (stöm'ät) *a.* [Gk. *stoma*, mouth.] With *stoma* or *stomata*.

stomatic (stömät'ík) *a.* [Gk. *stoma*, *Pert.*, or like, a *stoma*; *appl.* pore; *stomatal*.

stomatiferous (stömätif'ërüs) *a.* [Gk. *stoma*, mouth; L. *ferre*, to carry.] Bearing *stomata*.

stomatogastric (stöm'ätögäs'trîk) *a.* [Gk. *stoma*, mouth; *gaster*, stomach.] *Pert.* mouth and stomach; *appl.* visceral system of nerves supplying anterior part of alimentary canal; *appl.* recurrent nerve from frontal to stomachic ganglion, in insects.

stomatogenesis (stöm'ätöjën'ësis) *n.* [Gk. *stoma*, mouth; *genesis*, origin.] The formation of a mouth, as in Ciliata.

stomatose, **stomatous**,—*stomate*.

stomidium (stömid'iüm) *n.* [Gk. *stoma*, mouth; *idion*, *dim.*] Aperture representing terminal pore of degenerated tentacles of Actiniaria.

stomions (stöm'ïönz) *n. plu.* [Gk. *stomion*, small mouth.] Dermal pores or ostia perforating dermal membrane of developing sponge.

stomium (stöm'iüm) *n.* [Gk. *stomion*, small mouth.] Group of thin-walled cells in fern sporangium where rupture of mature capsule takes place; slit of dehiscing anther.

stomocoel (stöm'ösël) *n.* [Gk. *stoma*, mouth; *koilos*, hollow.] System of cavities in lips.

stomodaeal canal,—in Ctenophora, a canal given off by each per-radial canal, and situate parallel to stomodaeum.

stomodaeum (stöm'ödë'iüm) *n.* [Gk. *stoma*, mouth; *odaios*, *pert.* way.] Anterior ectoderm-lined portion of alimentary canal; anterior pitted-in portion of embryonic gut.

stone canal,—madreporic canal, an

S-shaped cylinder extending from madreporite to near mouth border in echinoderms; hydrophoric canal.

stone cells,—sclerotic cells or rounded sclerenchymatous elements, as found in pear; brachysclereids.

stone fruit,—fruit with a hard endocarp; a drupe.

storage trunk,—root-like part of a fungal stipe; pseudorhiza.

strangulated (sträng'gülatëd) *a.* [L. *strangulare*, to throttle.] Constricted in places; contracted and expanded irregularly.

strata,—*plu.* of *stratum*.

stratification (strät'ifikä'shün) *n.* [L. *stratum*, layer; *facere*, to make.] Arrangement in layers; superimposition of layers of epithelium cells; vertical grouping within a community.

stratified epithelium,—epithelium cells arranged in many superimposed layers.

stratiform (strät'iförm) *a.* [L. *stratum*, layer; *forma*, shape.] *Appl.* fibrocartilage coating osseous grooves, or developed in some tendons.

stratose (strä'tös) *a.* [L. *stratum*, layer.] Arranged in layers.

stratum (strä'tüm) *n.* [L. *stratum*, layer.] A layer, as of cells, or of tissue; a group of organisms inhabiting a vertical division of an area; vegetation of similar height in a plant community, as trees, shrubs, herbs, and mosses; a layer of rock. *Plu.* *strata*.

stratum compactum,—surface layer of decidua vera.

stratum corneum,—horny external layer of epidermis.

stratum cylindricum,—inner ectodermal layer surrounding mesodermal pulp of feather.

stratum fibrosum,—external fibrous tissue of articular capsule.

stratum germinativum,—Malpighian layer or rete Malpighii, *q.v.*

stratum granulosum,—superficial layer of rete mucosum of skin.

stratum lucidum,—layer of cells between stratum corneum and stratum granulosum of skin.

stratum opticum,—layer of nerve-fibres constituting innermost layer of retina; layer of multipolar nerve cells of anterior corpora quadrigemina, *cf.* stratum zonale.

stratum spinosum,—layer of prickle-cells in epidermis.

stratum spongiosum,—deeper three-fourths of decidua vera.

stratum synoviale,—internal stratum of articular capsule; synovial membrane, *q.v.*

stratum zonale, cinereum, opticum, lemnisci,—strata of anterior corpora quadrigemina, from surface inwards.

strepsinema (strēp'sinē'mā) *n.* [Gk. *strepsis*, twisting; *nema*, thread.] Chromosome thread at the strepsitene stage.

strepsitene (strēp'sitēn) *a.* [Gk. *strepsis*, twisting; *tainia*, band.] *Appl.* stage in meiosis where the diplotene threads appear to be twisted.

streptostylic (strēp'töstīl'ik) *a.* [Gk. *streptos*, pliant; *stylos*, column.] Exhibiting streptostyly, or having quadrate in movable articulation with squamosal; *cf.* monimostylic.

stria (strī'ā) *n.* [L. *stria*, groove, channel.] A narrow line, streak, band, groove, or channel.

striated (strī'ātēd) *a.* [L. *striatus*, grooved.] Marked by narrow lines or grooves, usually parallel; striate.

striated muscle,—voluntary muscle, fibres presenting transverse striations; bundles of fibres enclosed in a sheath continuous with tendons.

striatum (strī'ātūm) *a.* [L. *striatus*, grooved.] Corpus striatum, *q.v.*

stridulating organs,—a special apparatus on metathoracic and anterior abdominal segments for producing song of cicadas; sound-producing organs of various other Arthropoda.

striga (strī'gā) *n.* [L. *striga*, ridge, furrow.] A band of upright, stiff, pointed hairs or bristles; a bristle-like scale.

strigate (strī'gāt) *a.* [L. *striga*, ridge.] Bearing strigae.

strigilis (strīj'illīs) *n.* [L. *strigilis*, curry-comb.] A mechanism for cleaning antennae, at junction of tibia and tarsus on first leg of bees.

strigillose (strīj'illōs) *a.* [L. *strigilla*, small ridge.] Minutely strigose.

strigose (strī'gōs) *a.* [L. *striga*, ridge.] Covered with stiff hairs; ridged; marked by small furrows.

striola (strīō'lā) *n.* [L. *striola*, small channel.] Fine narrow line or streak.

striolate (strī'ōlāt) *a.* [L. *striola*, small channel.] Finely striate.

stripe of Hensen,—*see* Hensen's stripe.

strobila (strōb'ilā) *n.* [Gk. *strobilos*, fir cone.] Stage in development of some Scyphozoa, where from a succession of annular discs embryos take form of a pile of discs separated off in turn; chain of proglottides of tapeworms.

strobilaceous (strōb'ilā'shūs) *a.* [Gk. *strobilos*, fir cone.] Cone-shaped; *pert.* or having strobiles.

strobilation (strōb'ilā'shūn) *n.* [Gk. *strobilos*, fir cone.] Reproduction by body-segmentation into zooids, as in coelenterates, or into proglottides, as in tape-worms; strobilisation.

strobile (strōb'il) *n.* [Gk. *strobilos*, fir cone.] A strobila, or strobilus; a spike formed of persistent membranous bracts, each having a pistillate flower; a cone; an assemblage of sporophylls.

strobiliferous (strōb'ilīf'ērūs) *a.* [Gk. *strobilos*, fir cone; L. *ferre*, to carry.] Producing strobiles.

strobiloid (strōb'iloid) *a.* [Gk. *strobilos*, fir cone; *eidōs*, form.] Strobiliform; resembling or shaped like a strobilus or cone.

strobilus (strōb'ilūs) *n.* [Gk. *strobilos*, fir cone.] A strobile; a cone.

stroma (strō'mā) *n.* [Gk. *stroma*, bedding.] Transparent filmy framework of red blood corpuscles; protoplasmic body of a plastid; connective tissue binding and supporting an organ; in ovary, a soft,

- vascular, reticular framework in meshes of which ovarian follicles are imbedded; tissue of hyphae, or of fungus cells with host tissue, in or upon which spore-bearing structures may be produced.
- stromata**,—*plu.* of stroma; short protrusions from a sclerotium, each composed of hyphae, in which perithecia are developed in some thallophytes.
- stromate** (strō'māt) *a.* [Gk. *stroma*, bedding.] Having, or being within or upon, a stroma; *appl.* fruit-bodies of fungi.
- stromatic** (strōmāt'ik) *a.* [Gk. *stroma*, bedding.] *Pert.* like, in form or nature of, a stroma; stromatiform, stromatous, stromatoid.
- stromatolysis** (strō'mātōl'isis) *n.* [Gk. *stroma*, bedding; *lysis*, loosening.] Continued action of a haemolysin on cell stroma after haemoglobin has been liberated.
- strombuliferous** (strōmbūlif'ērūs) *a.* [*Dim.* of L. *strombus*, spiral shell; *ferre*, to carry.] Having spirally-coiled organs or structures.
- strombuliform** (strōm'būlifōrm) *a.* [*Dim.* of L. *strombus*, spiral shell; *forma*, shape.] Spirally coiled.
- stromoid**,—stromatoid, stromatic.
- strongyle** (strōn'jil), **strongylon** (strōn'jilōn) *n.* [Gk. *stronggylos*, rounded.] A two-rayed rod sponge spicule rounded at both ends; a nematode.
- strophiolate** (strōf'iolāt) *a.* [L. *strophium*, small garland.] Having excrescences round hilum.
- strophioles** (strōf'iolz) *n. plu.* [L. *strophium*, small garland.] Small excrescences arising from various parts of a seed testa, never developed before fertilisation; caruncles.
- strophotaxis** (strōfōtāk'sis) *n.* [Gk. *strophos*, twisted; *taxis*, arrangement.] Twisting movement or tendency, in response to an external stimulus.
- struma** (stroom'ā) *n.* [L. *struma*, scrofulous tumour.] A swelling on a plant organ.
- strumiferous** (stroomif'ērūs) *a.* [L. *struma*, tumour; *ferre*, to carry.] Having a struma or strumae.
- strumiform** (stroom'ifōrm) *a.* [L. *struma*, wen; *forma*, shape.] Cushion-like.
- strumose** (stroomōs'), **strumulose** (stroom'ulōs) *a.* [L. *struma*, wen.] Having small cushion-like swellings.
- strut-roots**,—buttress roots, *q.v.*
- stupeous** (stū'pēus), **stupose** (stū'pōs) *a.* [L. *stupa*, tow.] Tow-like; having a tuft of matted filaments.
- stupulose** (stū'pūlōs) *a.* [L. *stupa*, tow.] Covered with short filaments.
- stylar** (stī'lār) *a.* [L. *stylus*, pricker.] *Pert.* a style.
- stylete** (stī'lāt) *a.* [L. *stylus*, pricker.] Having a style or styles.
- style** (stil) *n.* [Gk. *stylos*, pillar; L. *stylus*, pricker.] Slender upper part of pistil, supporting stigma; a rod-like sponge spicule pointed at one end; a calcareous projection from pore tabula in some Millepora; abdominal bristle-like process on male insects; arista, *q.v.*; embolus of spiders; any of the small projections of cingulum of a molar tooth.
- stylet** (stī'lēt) *n.* [L. *stylus*, pricker.] Small, pointed bristle-like appendage; unpaired part of terebra or sting, held in position by stylet-sheath; needle-like digit of chelicerae in certain parasitic Acarina.
- stylifer** (stī'lifēr) *n.* [L. *stylus*, pricker; *ferre*, to carry.] Portion of clasper which carries style.
- styliferous** (stilif'ērūs) *a.* [L. *stylus*, pricker; *ferre*, to carry.] Bearing a style; having bristly appendages.
- styliform** (stī'lifōrm) *a.* [L. *stylus*, pricker; *forma*, shape.] Pricker- or bristle-shaped.
- styloconic** (stī'lōkōn'ik) *a.* [Gk. *stylos*, pillar; *konos*, cone.] Having terminal peg on conical base; *appl.* type of olfactory sensilla in insects.
- styloglossal** (stī'lōglōs'āl) *a.* [Gk. *stylos*, pillar; *glossa*, tongue.] *Pert.* styloglossus muscle connecting styloid process and tongue.

stylogonidium,—conidium, *g.v.*

stylohyal (stī'lōhī'āl) *n.* [Gk. *stylos*, pillar; *hyoeides*, Y-shaped.] Distal part of styloid process of temporal bone; a small interhyal between hyal and hyomandibular.

stylohyoid (stī'lōhī'oid) *a.* [Gk. *stylos*, pillar; *hyoeides*, Y-shaped.] *Appl.* a ligament attached to styloid process and lesser cornu of hyoid; *appl.* a muscle; *appl.* a branch of facial nerve.

styloid (stī'lōid) *a.* [Gk. *stylos*, pillar; *eidōs*, form.] *Appl.* processes of temporal bone, fibula, radius, ulna.

stylomandibular (stī'lōmāndīb'ulār) *a.* [Gk. *stylos*, pillar; L. *mandibulum*, jaw.] *Appl.* ligamentous band extending from styloid process of temporal bone to angle of lower jaw.

styломastoid (stī'lōmās'toid) *a.* [Gk. *stylos*, pillar; *mastos*, breast; *eidōs*, like.] *Appl.* foramen between styloid and mastoid processes, also an artery entering that foramen.

stylopharyngeus (stī'lōfārīn'jēūs) *n.* [Gk. *stylos*, pillar; *pharynx*, pharynx.] A muscle extending from the base of styloid process downwards along side of pharynx.

stylopodium (stīlopō'diūm) *n.* [Gk. *stylos*, pillar; *pous*, foot.] A conical swelling surrounding bases of divaricating styles of Umbelliferae; structure attaching mericarps to carpophore; upper arm, or thigh.

stylospore (stī'lōspōr) *n.* [Gk. *stylos*, pillar; *sporos*, seed.] A stalked spore, as in Coniomycetes; conidium.

stylosporous (stīlōs'pōrūs) *a.* [Gk. *stylos*, pillar; *sporos*, seed.] *Pert.* a stylospore or conidium.

stylostegium (stī'lōstē'jiūm) *n.* [Gk. *stylos*, pillar; *stēge*, roof.] Inner corona of milk-weed plants.

stylostome (stī'lōstōm) *n.* [L. *stylus*, pricker; Gk. *stoma*, mouth.] A tube in skin produced by tissue reaction of host to insertion of chelicerae of a mite.

stylus (stī'lūs) *n.* [L. *stylus*, pricker.] A style; stylet; simple pointed

spicule; molar cusp; pointed process.

subabdominal (süb'äbdōm'īnāl) *a.* [L. *sub*, under; *abdomen*, belly.] Nearly in abdominal region.

subacuminate (süb'äkū'mīnāt) *a.* [L. *sub*, under; *acumen*, point.] Somewhat tapering.

subaduncate (süb'ädüng'kāt) *a.* [L. *sub*, under; *aduncus*, hooked.] Somewhat crooked.

subaerial (süb'äē'riāl) *a.* [L. *sub*, under; *aer*, air.] Growing just above surface of ground.

subalpine (sübäl'pīn) *a.* [L. *sub*, under; *alpinus*, alpine.] *Appl.* zone below timber line, or to plants or animals growing or living there.

subalternate (süb'ältēr'nāt, -ōl-) *a.* [L. *sub*, under; *alternus*, one after another.] Tending to change from alternate to opposite.

subanconeus (süb'ängkōnē'ūs) *n.* [L. *sub*, under; Gk. *angkon*, elbow.] Small muscle extending from triceps to elbow.

subapical (sübäp'ikāl) *a.* [L. *sub*, under; *apex*, extremity.] Nearly at the apex.

subarachnoid (sübārāk'noid) *a.* [L. *sub*, under; Gk. *arachne*, spider's web; *eidōs*, form.] *Appl.* a cavity filled with cerebrospinal fluid between arachnoid and pia mater; *appl.* cisternae of brain, and longitudinal septum in region of spinal medulla.

subarborescent (süb'ärbōrēs'ēnt) *a.* [L. *sub*, under; *arborescens*, growing into a tree.] Somewhat like a tree.

subarcuate (sübär'küāt) *a.* [L. *sub*, under; *arcus*, bow.] *Appl.* a blind fossa which extends backwards under superior semicircular canal, in infant skull.

subatrial (sübä'triāl) *a.* [L. *sub*, under; *atrium*, hall.] Below the atrium; *appl.* longitudinal ridges on inner side of metapleural folds, uniting to form ventral part of atrium, in development of lancelet.

subauricular (süb'ōrik'ulār) *a.* [L. *sub*, under; *auricula*, external ear.] Below the ear.

subaxillary (sübáks'ílárl) *a.* [L. *sub*, under; *axilla*, arm - pit.] *Appl.* outgrowths just beneath the axil.

sub-basal (süb-bā'sál) *a.* [L. *sub*, under; Gk. *basis*, foundation.] Situated near the base.

sub-branchial (süb-bräng'kiäl) *a.* [L. *sub*, under; Gk. *branchia*, gills.] Under the gills.

sub-bronchial (süb-bröng'kiäl) *a.* [L. *sub*, under; Gk. *brongchos*, windpipe.] Below the bronchials.

subcalcareous (süb-kälkä'rëüs) *a.* [L. *sub*, under; *calx*, lime.] Somewhat limy.

subcalcarine (süb-käl'kärln) *a.* [L. *sub*, under; *calcar*, spur.] Under the calcarine fissure; *appl.* lingual gyrus of brain.

subcallosal (süb'kälö'säl) *a.* [L. *sub*, under; *callus*, hard skin.] *Appl.* a gyrus below corpus callosum.

subcampanulate (süb'kämpän'ülät) *a.* [L. *sub*, under; *campanula*, little bell.] Somewhat bell-shaped.

subcapsular (süb-käp'sülär) *a.* [L. *sub*, under; *capsula*, little chest.] Inside a capsule.

subcardinal (süb-kär'dinäl) *a.* [L. *sub*, under; *cardo*, hinge.] *Appl.* pair of veins between mesonephroi.

subcarinate (süb-kär'inät) *a.* [L. *sub*, under; *carina*, keel.] Somewhat keel-shaped.

subcartilaginous (süb'kärtiläj'inüs) *a.* [L. *sub*, under; *cartilago*, gristle.] Not entirely cartilaginous.

subcaudal (süb-köd'äl) *a.* [L. *sub*, under; *cauda*, tail.] Situate under tail, as a shield or plate.

subcaudate (süb-köd'ät) *a.* [L. *sub*, under; *cauda*, tail.] Having a tail-like process.

subcaulescent (süb'kölës'ënt) *a.* [L. *sub*, under; *caulis*, stalk.] Borne on a very short stem.

subcellular (süb-sél'ülär) *a.* [L. *sub*, under; *cellula*, small cell.] *Appl.* functional units within the cell, as chloroplasts, chromosomes, etc.

subcentral (süb-sën'träl) *a.* [L. *sub*, under; *centrum*, centre.] Nearly central.

subchela (süb-kē'lä) *n.* [L. *sub*, under; Gk. *chele*, claw.] A prehensile claw of which last joint folds back on preceding, as in Squilla.

subchelate (süb-kē'lät) *a.* [L. *sub*, under; Gk. *chele*, claw.] Having subchela; having imperfect chela.

subchelicerai (süb'kēlīs'ëräl) *a.* [L. *sub*, under; Gk. *chele*, claw; *keras*, horn.] Beneath the cheliceræ; *appl.* plate or epistome, for attachment of pharyngeal dilators in certain Acarina.

subchordal (süb-kôr'däl) *a.* [L. *sub*, under; *chorda*, cord.] Under the notochord.

subcingulum (sübsing'gülm) *n.* [L. *sub*, under; *cingulum*, girdle.] The lower lip part of a cingulum or girdle of rotifers.

subclavate (sübklä'vät) *a.* [L. *sub*, under; *clavus*, club.] Somewhat club-shaped.

subclavian (sübklä'viän) *a.* [L. *sub*, under; *clavis*, key.] Below clavicle; *appl.* artery, vein, nerve, muscle.

subclimax (sübklī'mäks) *n.* [L. *sub*, under; Gk. *klimax*, ladder.] Stage in plant succession preceding final stage; proclimax, *q.v.*

subcoracoid (süb-kôr'äkoid) *a.* [L. *sub*, under; Gk. *korax*, crow; *eidos*, like.] Below the coracoid.

subcordate (süb-kôr'dät) *a.* [L. *sub*, under; *cor*, heart.] Tending to be heart-shaped.

subcorneous (süb'kôr'nëüs) *a.* [L. *sub*, under; *cornu*, horn.] Under a horny layer; slightly horny.

subcortical (süb-kôr'tikäl) *a.* [L. *sub*, under; *cortex*, bark.] Under cortex, or cortical layer; *appl.* cavities under dermal cortex of sponges.

subcosta (süb-kös'tä) *n.* [L. *sub*, under; *costa*, rib.] An auxiliary vein joining costa of insect wing.

subcostal,—below ribs; *appl.* zone, muscles, arteries, plane; *pert.* subcosta.

subcoxa (süb-kök'sä) *n.* [L. *sub*, under; *coxa*, hip.] Basal ring, or segment, articulated distally with

coxa of arthropod leg; praecoxa, pretrochantin.

subcrenate (sübkrē'nāt) *a.* [L. *sub*, under; L.L. *crena*, notch.] Tending to have rounded scallops, as a leaf margin.

subcureal (sübkrōr'ēāl) *a.* [L. *sub*, under; *crus*, leg.] *Appl.* subcureus or articularis genus muscle, extending from lower femur to knee.

subcubical (sübkü'bikāl) *a.* [L. *sub*, under; *cubus*, cube.] *Appl.* cells not quite so long as broad, as those lining alveoli of thyroid.

subcutaneous (süb'kütā'nēūs) *a.* [L. *sub*, under; *cutis*, skin.] Under the cutis or skin; *appl.* parasites living just under skin; *appl.* inguinal or external abdominal ring.

subcuticular (süb'kütik'ülär) *a.* [L. *sub*, under; *cuticula*, cuticle.] Under the cuticle, epidermis, or outer skin.

subcutis (sübkü'tis) *n.* [L. *sub*, under; *cutis*, skin.] A loose layer of connective tissue between corium and deeper tissues of skin; tela subconjunctiva; inner layer of cutis of mushrooms, under the epicutis.

subdentate (sübdēn'tāt) *a.* [L. *sub*, under; *dens*, a tooth.] Slightly toothed or notched.

subdermal (sübdēr'mäl) *a.* [L. *sub*, under; Gk. *derma*, skin.] Beneath the skin; beneath derma.

subdorsal (sübdör'säl) *a.* [L. *sub*, under; *dorsum*, back.] Situated almost on dorsal surface.

subdural (sübdūr'äl) *a.* [L. *sub*, under; *durus*, hard.] *Appl.* the space separating spinal dura mater from arachnoid.

subepicardial (süb'ēpikār'diäl) *a.* [L. *sub*, under; Gk. *ēpi*, upon; *kardia*, heart.] *Appl.* areolar tissue attaching visceral layer of pericardium to muscular wall of heart.

subepiglottic (süb'ēpiglōt'ik) *a.* [L. *sub*, under; Gk. *ēpi*, upon; *glotta*, tongue.] Beneath epiglottis.

subepithelial (süb'ēpithē'liäl) *a.* [L. *sub*, under; Gk. *ēpi*, upon; *thallein*, to grow.] Below epithelium;

appl. plexus of cornea; *appl.* endothelium; Débove's membrane, *q.v.*

suber (süb'ēr) *n.* [L. *suber*, cork-tree.] Cork tissue.

subereous (sübēr'ēūs) *a.* [L. *suber*, cork-tree.] Of corky texture.

suberic (sübēr'ik) *a.* [L. *suber*, cork-tree.] *Pert.* or derived from cork.

suberiferous (sübērif'ērūs) *a.* [L. *suber*, cork-tree; *ferre*, to bear.] Cork-producing.

suberification (süb'ērifikā'shūn) *n.* [L. *suber*, cork-tree; *facere*, to make.] Conversion into cork tissue.

suberin (süb'ērīn) *n.* [L. *suber*, cork-tree.] The waxy substance developed in a thickened cell-wall, characteristic of cork tissues.

suberisation (süb'ērīzā'shūn) *n.* [L. *suber*, cork-tree.] Modification of cell-walls due to suberin formation.

suberose (süb'ērōs) *a.* [L. *suber*, cork-tree.] With corky, waterproof texture. (süb'ērōs') *a.* [L. *sub*, under; *erosus*, gnawed.] As if somewhat gnawed.

sub-esophageal,—sub-oesophageal.

subfusiform (sübfū'zifōrm) *a.* [L. *sub*, under; *fusus*, spindle; *forma*, shape.] Somewhat spindle-shaped; elliptic-fusiform; boletiform.

subgalea (sübgā'lēä) *n.* [L. *sub*, under; *galea*, helmet.] Part of maxilla, at base of stipes, of insects.

subgeniculate (süb'jēnik'ülāt) *a.* [L. *sub*, under; *geniculum*, little knee.] Somewhat bent.

subgenital (süb'jēn'itäl) *a.* [L. *sub*, under; *genitalis*, genital.] Below reproductive organs; *appl.* shallow pit or pouch beneath gonad in Aurelia; *appl.* portico formed by fusion of subgenital pouches of Discomedusae; *appl.* plate formed by ninth abdominal sternite and coxites, hypandrium of certain insects.

subgerminal (sübgēr'minäl) *a.* [L. *sub*, under; *germen*, bud.] Beneath the germinal disc; *appl.* cavity.

subglenoid (sübglē'noid) *a.* [L. *sub*, under; Gk. *glene*, socket; *eidos*, form.] Beneath glenoid cavity.

subglossal (sübglös'äl) *a.* [L. *sub*, under; Gk. *glossa*, tongue.] Beneath the tongue.

subharpal (sübhâr'päl) *a.* [L. *sub*, under; Gk. *harpe*, sickle.] *Appl.* plate in area below harpe in insects.

subhyaloid (sübhī'äloid) *a.* [L. *sub*, under; Gk. *hyalos*, glass; *eidos*, like.] Beneath hyaloid membrane or fossa of eye.

subhymenium (süb'himē'nīüm) *n.* [L. *sub*, under; Gk. *hymen*, membrane.] Layer of small cells between trama and hymenium in gill of agarics.

subhyoid (sübhī'oid) *a.* [L. *sub*, under; Gk. *hyoeides*, T-shaped.] Below hyoid at base of tongue.

subicle,—subiculum of fungi.

subiculum (sübik'ülüm) *n.* [L. *subiculum*, under layer.] A mycelial covering of substrate; part of the hippocampus bordering the hippocampal fissure; bony ridge bounding oval opening in interior wall of middle ear.

subimago (süb'imä'gō) *n.* [L. *sub*, under; *imago*, likeness.] A stage between pupa and imago in life-history of some insects; pseudimago.

subinguinal (sübin'gwinäl) *a.* [L. *sub*, under; *inguen*, groin.] Situated below a horizontal line at level of great saphenous vein termination; *appl.* lymph-glands.

subjugal (sübjoo'gäl) *a.* [L. *sub*, under; *jugum*, yoke.] Below jugal or cheek bone.

subjugal (sübjoo'g'ülär, -jüg'-) *a.* [L. *sub*, under; *jugulum*, collar-bone.] *Appl.* a ventral fish-fin nearly far enough forward to be jugular.

sublanceolate (süblän'seölät) *a.* [L. *sub*, under; *lanceolatus*, speared.] Tending to be narrow and to taper towards both ends.

sublaryngeal (süblärin'jēäl) *a.* [L. *sub*, under; Gk. *laryngx*, larynx.] Situate below larynx.

sublenticular (sübléntik'ülär) *a.* [L. *sub*, under; *lenticula*, small lentil.] Somewhat lens-shaped.

subliminal (süblīm'inäl) *a.* [L. *sub*,

under; *limen*, threshold.] Inadequate for perceptible response, *appl.* stimuli; *cf.* *limen*.

sublingua (sübling'gwä) *n.* [L. *sub*, under; *lingua*, tongue.] A single or double projection or fold beneath tongue, in some mammals.

sublingual (sübling'gwäl) *a.* [L. *sub*, under; *lingua*, tongue.] Beneath tongue; *appl.* gland, artery, etc.; *appl.* ventral pharyngeal gland, in Hymenoptera.

sublitoral (süblit'öräl) *a.* [L. *sub*, under; *litus*, sea-shore.] Below litoral; *appl.* shallow water zone to about 100 fathoms; sublittoral.

sublobular (süblöb'ülär) *a.* [L. *sub*, under; *lobus*, lobe.] *Appl.* veins at base of lobules of liver.

sublocular (süblök'ülär) *a.* [L. *sub*, under; *loculus*, compartment.] Somewhat locular or cellular.

submalleate (sübmäl'ëät) *a.* [L. *sub*, under; *malleus*, hammer.] Somewhat hammer-shaped; *appl.* trophi of rotifer mastax.

submandibular (süb'mändib'ülär) *a.* [L. *sub*, under; *mandibulum*, jaw.] Beneath lower jaw; *appl.* gland and duct; submaxillary.

submarginal (sübmär'jinäl) *a.* [L. *sub*, under; *margo*, margin.] Placed nearly at margin.

submarginate (süb'mär'jinät) *a.* [L. *sub*, under; *margo*, margin.] *Appl.* a bordering structure near a margin.

submaxilla (süb'mäksil'ä) *n.* [L. *sub*, under; *maxilla*, jaw.] Mandible.

submaxillary (süb'mäksil'äri) *a.* [L. *sub*, under; *maxilla*, jaw.] Beneath lower jaw; *appl.* duct, ganglion, gland, triangle; mandibular.

submedian (sübmē'diän) *a.* [L. *sub*, under; *medius*, middle.] *Appl.* tooth or vein next median.

submental (sübmēn'täl) *a.* [L. *sub*, under; *mentum*, chin.] Beneath chin; *appl.* artery, glands, triangle, vibrissae; *pert.* submentum.

submentum (sübmēn'tüm) *n.* [L. *sub*, under; *mentum*, chin.] Basal part of labium of insects.

submersed (sübmersd') *a.* [L. *submergere*, to submerge.] *Appl.* plants growing entirely under water.

submicron (sübml'k'rön) *n.* [L. *sub*, under; Gk. *mikros*, small.] A particle seen as a separate disc only with aid of ultramicroscope; *cf.* amicon.

submucosa (süb'mükō'sā) *n.* [L. *sub*, under; *mucosus*, mucous.] Layer of tissue under mucous membrane.

subnasal (süb'nā'zāl) *a.* [L. *sub*, under; *nasus*, nose.] Beneath the nose.

subneural (süb'nū'rāl) *a.* [L. *sub*, under; Gk. *neuron*, nerve.] *Appl.* blood vessel in annelids; *appl.* gland and ganglion of nervous system of tunicates.

subnotochordal (süb'nōtōkōr'dāl) *a.* [L. *sub*, under; Gk. *noton*, back; *chorde*, cord.] *Appl.* a rod, the hypochord, ventral to true notochord.

suboccipital (süb'ōksip'itāl) *a.* [L. *sub*, under; *occiput*, back of head.] *Appl.* muscles, nerve, triangle, under occipitals of skull.

subocular shelf,—ingrowth from suborbitals supporting eyeball of fishes.

suboesophageal (sübēsōfāj'ēāl) *a.* [L. *sub*, under; Gk. *oisophagos*, gullet.] Below the gullet; *appl.* anterior ganglion of ventral nerve cord; subesophageal.

subopercular (süb'ōpēr'kūlār) *a.* [L. *sub*, under; *operculum*, cover.] Under operculum of fishes, or shell-lid of molluscs.

suboperculum (süb'ōpēr'kūlūm) *n.* [L. *sub*, under; *operculum*, cover.] The subopercle, a membrane bone of operculum of fishes.

suboptic (sübōp'tik) *a.* [L. *sub*, under; Gk. *optikos*, relating to sight.] Below the eye.

suboral (sübō'rāl) *a.* [L. *sub*, under; *os*, mouth.] Below or near mouth.

suborbital (sübōr'bitāl) *a.* [L. *sub*, under; *orbis*, circle.] *Appl.* structures below orbit.

subovate (sübō'vāt) *a.* [L. *sub*, under; *ovum*, egg.] Suboval; subovoid; somewhat oval or egg-shaped.

subpalmate (süb'pāl'māt) *a.* [L. *sub*, under; *palma* palm.] Tending to become palmate; *appl.* leaves.

subparietal (süb'pāri'etāl) *a.* [L. *sub*, under; *paries*, wall.] Beneath parietals; *appl.* sulcus which is lower boundary of parietal lobe.

subpectinate (süb'pēk'tināt) *a.* [L. *sub*, under; *pecten*, comb.] Tending to be comb-like in structure.

subpedunculate (süb'pēdūng'kūlāt) *a.* [L. *sub*, under; L.L. *pedunculus*, little foot.] Resting on very short stalk.

subpericardial (süb'pērikār'diāl) *a.* [L. *sub*, under; Gk. *peri*, round; *kardia*, heart.] Under pericardium.

subperitoneal (süb'pēritōnē'āl) *a.* [L. *sub*, under; Gk. *peritonaion*, something stretched round.] *Appl.* connective tissue under peritoneum.

subpetiolar (süb'pēt'iolār) *a.* [L. *sub*, under; *petiolus*, little foot.] Within petiole or leaf-stalk.

subpetiolate (süb'pēt'iolāt) *a.* [L. *sub*, under; *petiolus*, small foot.] Almost sessile.

subpharyngeal (süb'fārin'jēāl) *a.* [L. *sub*, under; Gk. *pharyngx*, pharynx.] Below the throat.

subphrenic (sübfrēn'ik) *a.* [L. *sub*, under; Gk. *phren*, midriff.] Below the diaphragm.

subpia (sübpi'āl) *a.* [L. *sub*, under; *pia*, kind.] Under the pia mater.

subpleural (süb'plōor'āl) *a.* [L. *sub*, under; Gk. *pleura*, side.] Beneath inner lining of thoracic wall.

subpubic (süb'pū'bik) *a.* [L. *sub*, under; *pubes*, adult.] Below the pubic region; *appl.* arcuate ligament.

subpulmonary (süb'pūl'mōnārī) *a.* [L. *sub*, under; *pulmo*, lung.] Beneath the lungs.

subradicate (süb'rād'ikāt) *v.* [L. *sub*, slightly; *radicari*, to take root.] To have a slight downward extension of base, as of stipe.

- subradius** (sübrä'diūs) *n.* [L. *sub*, under; *radius*, ray.] In radiate animals, a radius of fourth order, that between adradius and perradius, or between adradius and interradius.
- subradular** (sübräd'ülär) *a.* [L. *sub*, under; *radere*, to scrape.] *Appl.* organ containing nerve endings, situated at anterior end of odontophore.
- subramose** (sübrä'mös) *a.* [L. *sub*, under; *ramus*, branch.] Slightly branching.
- subreniform** (sübrēn'ifōrm) *a.* [L. *sub*, under; *renes*, kidneys; *forma*, shape.] Slightly kidney-shaped.
- subretinal** (sübrēt'īnāl) *a.* [L. *sub*, under; *rete*, net.] Beneath retina.
- subrostral** (sübrös'trāl) *a.* [L. *sub*, under; *rostrum*, beak.] Below the beak or rostrum; *appl.* a cerebral fissure.
- subsacral** (sübsä'krāl) *a.* [L. *sub*, under; *sacrum*, sacred.] Below the sacrum.
- subsartorial** (süb'särtō'riāl) *a.* [L. *sub*, under; *sartor*, tailor.] *Appl.* plexus under sartorius of thigh.
- subscapular** (sübskáp'ülär) *a.* [L. *sub*, under; *scapula*, shoulder-blade.] Beneath the scapula; *appl.* artery, muscles, nerves, etc.
- subsclerotic** (süb'sklērōt'ik) *a.* [L. *sub*, under; Gk. *skleros*, hard.] Beneath sclera; between sclerotic and choroid layers of eye.
- subscutal** (sübskütāl) *a.* [L. *sub*, under; *scutum*, shield.] Under a scutum; *appl.* cephalic gland or Géné's organ, *q.v.*, in ticks.
- subser** (süb'sēr) *n.* [L. *sub*, under; *serere*, to put in a row.] Plant succession on denuded area; secondary succession.
- subserous** (sübsēr'ūs) *a.* [L. *sub*, under; *serum*, whey.] Beneath a serous membrane; *appl.* areolar tissue.
- subserrate** (sübsēr'āt) *a.* [L. *sub*, under; *serra*, saw.] Somewhat notched or saw-toothed.
- subsessile** (sübsēs'il) *a.* [L. *sub*, under; *sedere*, to sit.] Nearly sessile; with almost no stalk.
- subsidiary cells**,—additional modified epidermal cells lying outside guard-cells.
- subspatulate** (sübspät'ülāt) *a.* [L. *sub*, under; *spatula*, spoon.] Somewhat spoon-shaped.
- subspinous** (sübspī'nūs) *a.* [L. *sub*, under; *spina*, spine.] Tending to become spiny.
- substantia** (sübstān'shiā) *n.* [L. *substantia*, substance.] Substance; matter.
- substantia adamantina**,—enamel of teeth.
- substantia alba**,—white matter of brain and spinal cord.
- substantia eburnea**,—dentine.
- substantia gelatinosa**,—gelatinous neuroglia, with some nerve cells, in spinal cord.
- substantia grisea**,—grey matter of brain and spinal cord.
- substantia nigra**,—a semilunar layer of grey cells of mid-brain.
- substantia ossea**,—cement of teeth; crusta petrosa.
- substantia reticularis**,—anterior and lateral reticular formations in medulla oblongata.
- substantia spongiosa**,—cancellous tissue of bone.
- substantive variation**,—changes in actual constitution or substance of parts; *cf.* meristic variation.
- substernal** (sübstēr'nāl) *a.* [L. *sub*, under; *sternum*, breast-bone.] Below the sternum.
- substipitate** (sübstip'itāt) *a.* [L. *sub*, under; *stipes*, stalk.] Having an extremely short stem.
- substomatal**,—hypostomatic.
- substrate** (süb'strāt) *n.* [L. *sub*, under; *stratum*, layer.] Inert substance containing or receiving a nutrient solution; the substance upon which an enzyme acts, zymolyte; a substance undergoing oxidation utilised in plant respiration, a respiratory substrate; substratum.

substratose (sübsträ'tōs) *a.* [L. *sub*, under; *stratum*, layer.] Slightly or indistinctly stratified.

substratum (sübsträ'tüm) *n.* [L. *sub*, under; *stratum*, layer.] The base to which a stationary animal or a plant is fixed; substrate, *q.v.*

subtectal (sübtëk'täl) *a.* [L. *sub*, under; *tectum*, roof.] *Pert.* alisphenoid of fish skull.

subtegmenal (sübtëg'minäl) *a.* [L. *sub*, under; *tegmen*, covering.] Under the tegmen or inner coat of a seed.

subtentacular canals,—two prolongations of echinoderm coelom.

subthalamus,—hypothalamus, *q.v.*; part of hypothalamus excluding optic chiasma and region of mamillary bodies.

subthoracic (süb'thōräs'ik) *a.* [L. *sub*, under; Gk. *thorax*, breast.] Not so far forward as to be called thoracic; *appl.* certain fish-fins.

subtrapezoidal (süb'träpëzoid'äl) *a.* [L. *sub*, under; Gk. *trapezion*, small table; *eidos*, form.] Somewhat trapezoid-shaped.

subtruncate (sübtrüng'kät) *a.* [L. *sub*, under; *truncatus*, maimed.] Terminating rather abruptly.

subtypical (sübtip'ikäl) *a.* [L. *sub*, under; *typus*, image.] Deviating slightly from type.

subulate (sü'bülät) *a.* [L. *subula*, awl.] Awl-shaped; narrow and tapering from base to a fine point; *appl.* leaves, as of onion.

subumbellate (sübüm'bëlät) *a.* [L. *sub*, under; *umbella*, small shade.] Tending to an umbellate arrangement with peduncles arising from a common centre.

subumbonal (sübüm'bōnäl) *a.* [L. *sub*, under; *umbo*, boss.] Beneath or anterior to umbo of bivalve shell.

subumbrella (süb'ümbrel'ä) *n.* [L. *sub*, under; *umbra*, shade.] Concave inner surface of medusoid bell.

subuncinate (sübün'sinät) *a.* [L. *sub*, under; *uncus*, hook.] Having a somewhat hooked process; somewhat hook-shaped.

subungual (sübüng'gwäl) *a.* [L. *sub*, under; *unguis*, nail.] Under a nail, claw, or hoof; hyponychial.

subunguis (sübüng'gwīs) *n.* [L. *sub*, under; *unguis*, nail.] The ventral scale of a claw.

subuniversal veil,—protoblema.

subvaginal (sübväj'inäl) *a.* [L. *sub*, under; *vagina*, sheath.] Within or under a sheath.

subvertebral (sübvēr'tëbräl) *a.* [L. *sub*, under; *vertebra*, turning joint.] Under the spinal column.

subvital (süb'vital) *a.* [L. *sub*, under; *vitalis*, vital.] Deficient in vitality; *appl.* genes causing a mortality of less than fifty per cent; *cf.* semilethal.

subzonal (sübzō'näl) *a.* [L. *sub*, under; *zona*, belt.] *Appl.* layer of cells internal to zona radiata.

subzygomatic (sübzi'gömät'ik) *a.* [L. *sub*, under; Gk. *zygon*, yoke.] Under the cheek-bone.

succate (sük'ät) *a.* [L. *succus*, sap.] Containing juice; juicy; succose, succous.

succession (süksësh'on) *n.* [L. *successio*, succession.] A geological, ecological, or seasonal sequence of species; the development of plant communities; chronological distribution of organisms in a given area; lagging of sex-chromosomes behind euchromosomes in moving to the poles after meiosis.

succiferous (süksif'ërüs) *a.* [L. *succus*, sap; *ferre*, to carry.] Sap-conveying.

succiput (sük'sipüt) *n.* [L. *sub*, under; *caput*, head.] Area below foramen of neck in insects.

succise (süksis') *a.* [L. *succisus*, lopped off.] Abrupt; appearing as if a part were cut off.

succubous (sük'übüs) *a.* [L. *sub*, under; *cubare*, to lie down.] With each leaf covering part of that under it.

succulent (sük'ülënt) *a.* [L. *succus*, sap.] Full of juice or sap.

succus (sük'üs) *n.* [L. *succus*, juice, sap.] The juice of a plant; fluid secreted by glands.

sucker (sūk'ēr) *n.* [A.S. *sucan*, to suck.] A stem-branch, first subterranean and then aerial, which may ultimately form an independent plant; haustorium, *q.v.*; an organ adapted for creating a vacuum, in some animals for purposes of ingestion, in others to assist in locomotion or attachment.

sucking disc,—a disc assisting in attachment, as at end of echinoderm tube-foot.

sucrose (sū'krōs) *n.* [F. *sucré*, sugar.] Cane sugar, $C_{12}H_{22}O_{11}$.

suctorial (sūktō'riāl) *a.* [L. *sugere*, to suck.] Adapted for sucking; furnished with suckers; *appl.* a pad of fat in relation with buccinator, supposed to assist in sucking.

sudation (sūdā'shūn) *n.* [L. *sudatio*, perspiration.] Discharge of water and substances in solution, as through pores; sweating.

sudor (sū'dōr) *n.* [L. *sudor*, sweat.] Perspiration.

sudoriferous (sū'dōrif'ērūs) *a.* [L. *sudor*, sweat; *ferre*, to carry.] Conveying, producing, or secreting sweat; *appl.* glands and their ducts; sudoriparous.

sufflamin (sūflā'mināl) *a.* [L. *sufflamen*, blast.] *Appl.* a plate partly forming gill-chamber in certain extinct fishes.

suffrutex (sūf'rootēks) *n.* [L. *sub*, under; *frutex*, shrub.] An under-shrub.

suffruticose (sūfroot'ikōs) *a.* [L. *sub*, under; *frutex*, shrub.] Somewhat shrubby.

sugent (sū'jēnt), **sugescent** (sūjēs'-ēnt) *a.* [L. *sugere*, to suck.] Suctorial.

sulcate (sūl'kāt) *a.* [L. *sulcus*, furrow.] Furrowed; grooved.

sulcation (sūlkā'shūn) *n.* [L. *sulcatio*, ploughing.] Fluting; formation of ridges and furrows, as in elytra.

sulcus (sūl'kūs) *n.* [L. *sulcus*, furrow.] A groove; *appl.* cerebral grooves; those of heart, tongue, cornea, bones, etc.; stomodaeal groove of Anthozoa; longitudinal

flagellum groove of Dinoflagellata; sulculus.

summation (sūmā'shūn) *n.* [L. *summa*, sum total.] Combined action of either simultaneous or successive subliminal stimuli or impulses which produces an excitatory or inhibitory response.

summer egg,—thin-shelled, quickly developing egg of some fresh-water forms, laid in spring or summer; *cf.* winter egg.

supercarpal (sūpērkār'pāl, soo-) *a.* [L. *super*, over; *carpus*, wrist.] Upper carpal or above the carpus.

supercilia (sūpērsil'iā, soo-) *n. plu.* [L. *supercilia*, eyebrows.] The eyebrows.

superciliary (sūpērsil'iāri, soo-) *a.* [L. *super*, over; *cilia*, eyelids.] *Pert.* eyebrows; above orbit.

superciliary arches,—two arched elevations below frontal eminences.

superficial (sūpērfish'āl, soo-) *a.* [L. *super*, over; *facies*, face.] On, or near, the surface; *appl.* arteries, veins, etc.

superfoetation (sū'pērfētā'shūn) *n.* [L. *super*, over; *foetus*, big with.] Fertilisation of ovary by more than one kind of pollen; successive fertilisation, of two ova of different oestrous periods, in the same uterus; superfetation; hypercycsis.

superglottal (sūpērglōt'āl, soo-) *a.* [L. *super*, over; Gk. *glotta*, tongue.] Above the glottis.

superior (sūpē'riōr, soo-) *a.* [L. *superior*, upper.] Upper; higher; growing or arising above another organ; anterior.

superlinguae (sū'pērlīng'gwē, soo-) *n. plu.* [L. *super*, over; *lingua*, tongue.] Paired lobes of hypopharynx in certain insects.

superparasite,—hyperparasite, *q.v.*

supersacral (sūpērsā'krāl, soo-) *a.* [L. *super*, over; *sacrum*, sacred.] Above the sacrum.

supersonic (sū'pērsōn'ik, soo-) *a.* [L. *super*, over; *sonare*, to sound.] *Appl.* sounds of high frequency inaudible by human ear, as emitted by certain animals.

supersphenoidal (sū'pērsfēnoid'āl, soo-) *a.* [L. *super*, over; Gk. *sphen*, wedge; *eidos*, form.] Above sphenoid bone.

supervolute (sūpērvölūt', soo-) *a.* [L. *super*, over; *volvere*, to roll.] Having a plaited and rolled arrangement in the bud.

supinate (sū'pīnāt) *a.* [L. *supinus*, bent backwards.] Inclining or leaning backwards.

supination (sūpīnā'shūn) *n.* [L. *supinus*, bent backward.] Movement of arm by which palm of hand is turned upwards; *cf.* pronation.

supinator brevis and **longus**,—two arm muscles used in supination.

supplemental air,—volume of air which can be expelled from the lungs after normal breathing out; reserve air.

supplementary type,—hypotype, *q.v.*

suppression (sūprēsh'ūn) *n.* [L. *suppressio*, a keeping back.] Non-development of an organ or part.

suppressor,—*appl.* genes which nullify the phenotypic effect of another gene.

supra-acromial (sū'prā-ākro'miāl, soo-) *a.* [L. *supra*, above; Gk. *akros*, summit; *omos*, shoulder.] Above the acromion of the shoulder-blade.

supra-anal (sū'prā-ā'nāl, soo-) *a.* [L. *supra*, above; *anus*, anus.] Sur-anal: above anus or anal region.

supra-angular, — surangular, *q.v.*

supra-auricular (sū'prā-ōrik'ūlār, soo-) *a.* [L. *supra*, above; *auris*, ear.] Above the auricle or ear; *appl.* feathers.

suprabranchial (sū'prābrāng'kiāl, soo-) *a.* [L. *supra*, above; *branchiae*, gills.] Above the gills.

suprabuccal (sū'prābūk'āl, soo-) *a.* [L. *supra*, above; *bucca*, cheek.] Above cheek and mouth.

suprabulbar (sū'prābūl'bār) *a.* [L. *supra*, above; *bulbus*, bulb.] *Appl.* region between hair-bulb and fibrillar region of hair.

supracallosal (sū'prākālō'sāl, soo-) *a.* [L. *supra*, above; *callosus*, hard.]

Appl. a gyrus on upper surface of corpus callosum of brain.

supracaudal (sū'prākōd'āl, soo-) *a.* [L. *supra*, above; *cauda*, tail.] Above the tail or caudal region.

supracellular (sū'prāsēl'ūlār, soo-) *a.* [L. *supra*, above; *cellula*, small cell.] *Appl.* structures, fibrous or laminar, originating from many cells.

supracerebral (sūprāsēr'ēbrāl) *a.* [L. *supra*, above; *cerebrum*, brain.] *Appl.* lateral pharyngeal glands, as in Hymenoptera.

suprachoroid (sū'prākō'roid, soo-) *a.* [L. *supra*, above; Gk. *chorion*, skin.] Over the choroid; between choroid and sclera; *appl.* lamina; suprachoroid.

supraclavicle (sū'prāklāv'īkl, soo-) *n.* [L. *supra*, above; *clavicula*, small key.] Supracleithrum, a bone of shoulder girdle of fishes.

supraclavicular (sū'prāklāvīk'ūlār, soo-) *a.* [L. *supra*, above; *clavicula*, small key.] Above or over the clavicle; *appl.* nerves.

supracleithrum (sū'prāklī'thrūm, soo-) *n.* [L. *supra*, above; Gk. *kleithron*, key.] Supracleivicle.

supracondylar (sū'prākōn'dīlār, soo-) *a.* [L. *supra*, above; Gk. *kondylos*, knob.] Above a condyle; *appl.* ridge and process.

supracostal (sū'prākōs'tāl, soo-) *a.* [L. *supra*, above; *costa*, rib.] Over or externally to the ribs.

supracranial (sū'prākrā'nīāl, soo-) *a.* [L. *supra*, above; Gk. *kranion*, skull.] Over or above the skull.

supradorsal (sū'prādōr'sāl, soo-) *a.* [L. *supra*, above; *dorsum*, back.] On or over the back; *appl.* small cartilaginous elements in connection with primitive vertebral column.

supra-episternum (sū'prāēp'istēr-nūm) *n.* [L. *supra*, above; Gk. *epi*, upon; L. *sternum*, breast-bone.] Upper sclerite of episternum in some insects.

supra-ethmoid (sū'prā-ēth'moid, soo-) *n.* [L. *supra*, above; Gk. *ethmos*, sieve; *eidos*, form.] Dermethmoid, a bone external to mesethmoid.

supraglenoid (sū'prāglē'noid, soo-) *a.* [L. *supra*, above; Gk. *glene*, socket.] Above the glenoid cavity; *appl.* tuberosity at apex of glenoid cavity.

suprahyoid (sū'prāhī'oid, soo-) *a.* [L. *supra*, above; Gk. *hyooides*, T-shaped.] Over the hyoid bone; *appl.* aponeurosis, glands, muscles.

supralabial (sū'prālā'biāl, soo-) *a.* [L. *supra*, above; *labium*, lip.] On the lip; *appl.* scutes or scales.

supralittoral (sū'prālīt'ōrāl, soo-) *a.* [L. *supra*, above; *litus*, seashore.] *Pert.* seashore above high-water-mark, or spray zone; supralittoral.

supraloral (sū'prālō'rāl, soo-) *a.* [L. *supra*, above; *lorum*, thong.] Above the loral region, as in birds, snakes.

supramastoid crest,—ridge at upper boundary of mastoid region of temporal bone; temporal line.

supramaxillary (sū'prāmāksīl'ārī, soo-) *a.* [L. *supra*, above; *maxilla*, jaw.] *Pert.* upper jaw.

suprameatal (sū'prāmēātāl, soo-) *a.* [L. *supra*, above; *meatus*, passage.] *Appl.* triangle and spine over external acoustic meatus.

supranasal (sū'prānā'zāl, soo-) *a.* [L. *supra*, above; *nasus*, nose.] Over nasal bone or nose.

supraoccipital (sū'prāōksīp'ītāl, soo-) *n.* [L. *supra*, above; *occiput*, back of head.] A large median bone of upper occipital region.

supraocular (sū'prāōk'ūlār, soo-) *a.* [L. *supra*, above; *oculus*, eye.] Over or above the eye; *appl.* scales.

supraesophageal (sū'prāēsōfāj'ēāl, soo-) *a.* [L. *supra*, above; Gk. *oiso-phagos*, gullet.] Above or over the gullet; supraesophageal.

supraorbital (sū'prāōr'bītāl, soo-) *a.* [L. *supra*, above; *orbis*, circle.] Above orbital cavities; *appl.* process, artery, foramen, nerve, vein, etc. *n.* A skull bone in certain fishes.

suprapatellar (sū'prāpātēl'ār, soo-) *a.* [L. *supra*, above; *patella*, kneepan.] *Appl.* bursa between upper part of patella and femur.

suprapericardial,—*see* ultimobran-chial.

suprapharyngeal (sū'prāfarīn'jēāl, soo-) *a.* [L. *supra*, above; Gk. *pharyngx*, pharynx.] Above or over pharynx.

suprapubic (sū'prāpū'bīk, soo-) *a.* [L. *supra*, above; *pubes*, adult.] Above the pubic bone.

suprasygial (sū'prāpī'gāl, soo-) *a.* [L. *supra*, above; Gk. *pyge*, rump.] Above the pygal bone.

suprarenal (sū'prārē'nāl, soo-) *a.* [L. *supra*, above; *renes*, kidneys.] Situated above kidneys; adrenal; *appl.* arteries, glands, veins, plexus.

suprarenal bodies, capsules, or glands,—paired endocrine glands situate near, or apposed to, kidneys of vertebrates; adrenals.

suprarenin (sū'prārē'nīn) *n.* [L. *supra*, above; *renes*, kidneys.] Synthetic adrenalinic.

suprarostral (sū'prārōs'trāl, soo-) *a.* [L. *supra*, above; *rostrum*, beak.] *Appl.* a cartilaginous plate anterior to trabeculae in Amphibia.

suprascapula (sū'prāskāp'ūla, soo-) *n.* [L. *supra*, above; *scapula*, shoulder-blade.] A cartilage of dorsal part of pectoral girdle in rays; an incompletely ossified extension of scapula of amphibians and certain reptiles.

suprascapular (sū'prāskāp'ūlār, soo-) *a.* [L. *supra*, above; *scapula*, shoulder-blade.] Above the shoulder-blade; *appl.* artery, ligament, nerve.

supraseptal (sū'prāsēp'tāl, soo-) *a.* [L. *supra*, above; *septum*, partition.] *Appl.* two plates diverging from interorbital septum.

suprasphenoid (sū'prāsfē'noid, soo-) *n.* [L. *supra*, above; Gk. *sphen*, wedge.] Membrane bone dorsal to sphenoid cartilage.

suprasphenoidal (sū'prāsfēnoid'āl, soo-) *a.* [L. *supra*, above; Gk. *sphen*, wedge.] Above sphenoid bone of skull.

supraspinal (sū'prāspī'nāl, soo-) *a.* [L. *supra*, above; *spina*, spine.]

- Above or over spinal column ; *appl.* a ligament ; above ventral nerve cord, in insects ; *appl.* a cord of connective tissue and pulsating vessel.
- supraspinatus** (sū'prāspīnā'tūs, soo-) *a.* [L. *supra*, above ; *spina*, spine.] *Appl.* scapular fossa and fascia for origin of supraspinatus.
- supraspinatus**,—shoulder-muscle inserted into proximal part of greater tubercle of humerus.
- suprastapedial** (sū'prāstāpē'diāl, soo-) *n.* [L. *supra*, above ; *stapes*, stirrup.] The part of columella of ear above stapes, homologous with mammalian incus.
- suprasternal** (sū'prāstēr'nāl, soo-) *a.* [L. *supra*, above ; *sternum*, breast-bone.] Over or above breast-bone ; *appl.* a slit-like space in cervical muscle ; *appl.* supernumerary sternal elements in some mammals ; *appl.* body-plane.
- suprastigmal** (sū'prāstīg'māl, soo-) *a.* [L. *supra*, above ; *stigma*, mark.] Above a stigma or breathing-pore of insects.
- supratemporal** (sū'prātēm'pōrāl, soo-) *a.* [L. *supra*, above ; *tempora*, temples.] *Pert.* upper temporal region of skull ; *appl.* bone, arch, fossa.
- suprathoracic** (sū'prāthōrās'ik, soo-) *a.* [L. *supra*, above ; Gk. *thorax*, breast.] Above thoracic region.
- supratidal** (sū'prāti'dāl) *a.* [L. *supra*, above ; A.S. *tid*, time.] Above high-tide mark ; *appl.* spray zone, or to organisms living there.
- supratonsillar** (sū'prātōn'silār, soo-) *a.* [L. *supra*, above ; *tonsillae*, tonsils.] *Appl.* a small depression in lymphoid mass of palatine tonsil.
- supratrochlear** (sū'prātrōk'lēār, soo-) *a.* [L. *supra*, above ; Gk. *trochlea*, pulley.] Over trochlear surface ; *appl.* nerve, foramen, lymph glands.
- supratympanic** (sū'prātīmpān'ik, soo-) *a.* [L. *supra*, above ; *tympanum*, drum.] Above the eardrum.
- sural** (sū'rāl) *a.* [L. *sura*, calf of leg.] *Pert.* calf of leg ; *appl.* arteries and nerves.
- suranal**,—supra-anal, *q.v.*
- surangular** (sūrāng'gūlar) *n.* [L. *supra*, above ; *angulus*, angle.] Supra-angular ; a bone of lower jaw of some fishes, reptiles, and birds.
- surculose** (sūr'kūlōs) *a.* [L. *surculus*, shoot.] Surculous ; surculigerous ; *appl.* plants producing suckers first underground, thence aerial and forming independent plants ; bearing suckers ; stoloniferous.
- surculus** (sūr'kūlūs) *n.* [L. *surculus*, shoot.] Underground shoot, ultimately aerial and independent ; sucker.
- surcurrent** (sūr'kūr'ēnt) *a.* [L. *supra*, above ; *currere*, to run.] Proceeding or prolonged up a stem, *opp.* decurrent.
- surrenal**,—suprarenal.
- suscept** (sūs'sēpt) *n.* [L. *suscipere*, to undergo.] A plant or animal susceptible to disease ; a species harbouring a virus.
- suspensor** (sūspēn'sōr) *n.* [L. *suspendere*, to hang up.] A modified portion of a hypha from which a gametangium or a zygospore is suspended ; zygosporephore ; a chain of cells developed from hypobasal segment of angiosperm zygote, attaching embryo to embryo sac ; occurring in modified form in other plants ; terminal filament of ovariole.
- suspensorium** (sūspēnsō'rīūm) *n.* [L. *suspendere*, to hang up.] The upper part of hyoid arch from which lower jaw is suspended ; suspensory structure of hypopharynx ; the skeletal support of a gonopodium.
- suspensory** (sūspēn'sōrī) *a.* [L. *suspendere*, to hang up.] *Pert.* a suspensorium ; serving for suspension ; *appl.* various ligaments.
- sustentacular** (sūstēntāk'ūlār) *a.* [L. *sustentaculum*, prop, support.] Supporting ; *appl.* connective tissue acting as a supporting framework for an organ ; *appl.* cells, fibres.

sustentaculum lienis,—fold of peritoneum supporting spleen.

sustentaculum tali,—projection of calcaneus supporting middle articular surface for ankle bone.

sustentator (sūs'těntā'tōr) *n.* [L. *sustinere*, to sustain.] Sustentor or hooked cremaster of Lepidoptera.

sutural (sū'tūrāl, soo-) *a.* [L. *sutura*, seam.] *Pert.* a suture; *appl.* dehiscence taking place at a suture.

sutural bones,—irregular isolated bones occurring in the course of sutures, especially in lambdoidal suture and posterior fontanelle; ossa suturarum, Wormian bones.

suture (sū'tūr, soo-) *n.* [L. *sutura*, seam.] Line of junction of two parts immovably connected; line of union of shell-wall and edge of septum, as in ammonites; line of junction between sclerites; an immovable articulation of bone as in skull; dehiscence line.

Swammerdam's glands [*J. Swammerdam*, Dutch naturalist]. Periganglionic glands, *q.v.*

Swammerdam's vesicle,—the spermatheca of gastropods.

swarm (swōrm) *n.* [A.S. *swearm*, swarm.] A large number of small motile organisms viewed collectively; departure of a number of bees from one hive to form another.

swarm cell,—a motile isogamete, of certain fungi.

swarm spore,—zoospore, *q.v.*

swimmerets,—paired abdominal appendages of crustaceans, functional partly for swimming.

swimming bells,—nectocalyces of siphonophores, serving to propel the colony.

swimming or swim bladder,—air bladder of fishes, developed as a diverticulum of the alimentary canal.

swimming funnel,—tube of Dibranchiata through which water is expelled from mantle cavity, expulsion providing means of propulsion.

swimming ovaries,—groups of ripe ova of Acanthocephala, detached from ovary and floating in body cavity.

swimming-plates,—in Ctenophora, ciliated comb-like plates, arranged in eight equidistant bands or combs, propellers of the organism.

syconium (sīkō'nīūm) *n.* [Gk. *sykon*, fig.] A syconus: a composite, succulent, receptacular fruit.

sylva (sīl'vā) *n.* [L. *sylva*, forest.] Forest of a region; forest-trees collectively.

sylvestral (sīlvēs'trāl) *a.* [L. *sylvestris*, *pert.* forest.] *Appl.* flora of woodlands and forest.

sylvian (sīl'vīān) *a.* [*F. Sylvius* or *de la Boe*, French anatomist]. *Appl.* structures described by Sylvius, as aqueduct (*q.v.*) fissure (lateral cerebral fissure), fossa, veins, etc.

symbiont (sīm'bīōnt) *n.* [Gk. *syn*, with; *bioun*, to live.] One of the partners in symbiosis; symbion, symbiote.

symbiosis (sīm'bīō'sīs) *n.* [Gk. *synbioun*, to live together.] A condition in which two animals, two plants, or plant and animal, symbiotes or symbionts, live in mutually beneficial partnership; the living together of organisms belonging to more than one species.

symbiote,—symbiont, *q.v.*

symbiotic (sīm'bīōt'ik) *a.* [Gk. *synbioun*, to live together.] Living in beneficial partnership; living together, whether in actual contact or not, with mutual benefit or antagonism.

symmetrical (sīmēt'rikāl) *a.* [Gk. *syn*, with; *metron*, measure.] Regularly shaped; divisible into exactly similar parts.

symmetry (sīm'ētri) *n.* [Gk. *syn*, with; *metron*, measure.] State of divisibility into similar halves; regularity of form; similarity of structure on each side of an axis, central, dorsoventral, or antero-posterior. *See* bilateral and radial symmetry.

sympathetic (sîmpâthêt'îk) *a.* [Gk. *syn*, with; *pathos*, feeling.] *Appl.* system of nerves supplying viscera and blood-vessels, and intimately connected with spinal and some cerebral nerves; *appl.* segmental nerves supplying spiracles in insects; *appl.* coloration in imitation of surroundings.

sympathin (sîm'pâthin) *n.* [Gk. *syn*, with; *pathos*, feeling.] Substance yielded by sympathetic nerves and having physiological properties of adrenaline.

sympathoblast (sîm'pâthöbläst) *n.* [Gk. *syn*, with; *pathos*, feeling; *blastos*, bud.] A cell which develops into a neurone of sympathetic ganglia.

sympathochromaffin (sîm'pâthökrö'mäfin) *a.* [Gk. *syn*, with; *pathos*, feeling; *chroma*, colour; L. *affinis* related.] *Appl.* cells forming sympathoblasts and chromaffin bodies.

sympathomimetic (sîm'pâthömi-mêt'îk) *a.* [Gk. *syn*, with; *pathos*, feeling; *mimetikos*, imitating.] *Appl.* substances which produce effects like those produced by sympathetic stimulation.

sympatric (sîmpât'îk) *a.* [Gk. *syn*, with; *patra*, native land.] Having the same, or overlapping, areas of geographical distribution. *Opp.* allopatric.

sympetalous (sîmpêt'älüs) *a.* [Gk. *syn*, with; *petalon*, leaf.] Having a tubular corolla formed by union of petals; gamopetalous.

sympily (sîm'fîli) *n.* [Gk. *syn*, with; *philein*, to love.] Commensalism, of symphiles, with mutual liking.

symploresis (sîmför'ësis) *n.* [Gk. *symploresis*, a bringing together.] Conveyance collectively, as movement of spermatid group to a Sertoli cell.

sympyantherous, — synantherous, *q.v.*

symphyllodium (sîm'filö'diüm) *n.* [Gk. *syn*, with; *phyllon*, leaf; *eidos*, form.] A structure formed

by coalescence of external coats of two or more ovules; a compound ovuliferous scale.

symphyllous,—gamophyllous, *q.v.*

sympyogenesis (sîm'fiöjën'ësis) *n.* [Gk. *sympyhein*, to grow together; *genesis*, descent.] Development of an organ from union of two others.

sympysial (sîmfiz'îäl) *a.* [Gk. *sympysis*, a growing together.] Symphyseal; symphysian; *pert.* a symphysis.

sympysis (sîm'fisís) *n.* [Gk. *sympysis*, a growing together.] The coalescence of parts; the line of junction of two pieces of bone separate in early life, as pubic symphysis; slightly movable articulation with bony surfaces connected by fibrocartilage.

symlast (sîm'pläst) *n.* [Gk. *syn*, with; *plastos*, formed.] Multinucleate body formed by nuclear fragmentation of a single energid; coenocyte, *q.v.*

symlastic (sîmpläs'tik) *a.* [Gk. *symlassein*, to mould together.] Being formed with co-ordinated development of parts; *appl.* growth of contiguous cells without displacement of cell-walls.

symplectic (sîmplék'tik) *n.* [Gk. *sympлектos*, plaited.] A bone of fish skull between quadrate and hyomandibular.

symplex (sîm'plëks) *n.* [Gk. *sympлектos*, plaited.] The combination of the active substance and protoplasmic protein which constitutes an enzyme; *cf.* agon, pheron.

sympodial (sîmpö'diäl) *a.* [Gk. *syn*, with; *pous*, foot.] *Pert.* or resembling a sympodium in principle; *appl.* branching, growth of axillary shoots when apical budding has ceased.

sympodite (sîm'pödit) *n.* [Gk. *syn*, with; *pous*, foot.] The protopodite of Crustacea.

sympodium (sîmpö'diüm) *n.* [Gk. *syn*, with; *pous*, foot.] A primary axis consisting of a line connecting bases of consecutive branchings.

synacme (sināk'mē) *n.* [Gk. *syn*, with; *akme*, prime.] Condition when stamens and pistils mature simultaneously; synanthesis; synacmy.

synaesthesia (sinēsthē'zīā) *n.* [Gk. *syn*, with; *aisthesis*, sensation.] The accompaniment of a sensation due to stimulation of the appropriate receptor, as sound, by a sensation characteristic of another sense, as colour.

syngangium (sinān'jīūm) *n.* [Gk. *syn*, with; *anggeion*, vessel.] A compound sporangium in which sporangia are coherent, as in some ferns; anterior portion of truncus arteriosus.

synantherous (sinān'thērūs) *a.* [Gk. *syn*, with; *antheros*, flowery.] Having anthers united to form a tube.

synanthesis,—synacme, *q.v.*

synanthous (sinān'thūs) *a.* [Gk. *syn*, with; *anthos*, flower.] Having flowers and leaves appearing simultaneously; having flowers united together.

synanthy (sinān'thī) *n.* [Gk. *syn*, with; *anthos*, flower.] Adhesion of flowers usually separate.

synporium (sināpō'riūm) *n.* [Gk. *syn*, with; *aporia*, want.] An animal association formed owing to unfavourable environmental conditions or disease.

synposematic (sināp'ōsēmāt'ik) *a.* [Gk. *syn*, with; *apo*, from; *sema*, sign.] Having warning colours in common; *appl.* mimicry of a more powerful species as means of defence.

synapse (sināps') *n.* [Gk. *synapsis*, union.] The connection of one nerve cell and another through the medium of terminal branchings of dendrons or axons; the area of contiguity between two nerve cells; *cf.* ephapse.

synapsid (sināp'sid) *a.* [Gk. *synapsis*, union.] *Appl.* skulls with supra- and infra-temporal fossae united in a single fossa.

synapsis (sināp'sis) *n.* [Gk. *synapsis*, union.] Stage or period from

contraction of nucleus to segmentation of spireme into chromosomes; syndesis, *q.v.*; synapse, *q.v.*

synaptene (sināp'tēn) *a.* [Gk. *synapsis*, union; *tainia*, band.] *Appl.* zygotene stage in meiosis; synaptotene.

synaptic membrane,—a membrane intervening between nerve-ending and muscle fibre supplied by it, also between processes of one neurone and those of another.

synapticula (sināptik'ulā) *n.* [Gk. *synaptos*, joined.] One of small rods connecting septa of mushroom-coral, or like structure.

synaptospermous (sināptōspēr'mūs) *a.* [Gk. *synaptos*, joined; *sperma*, seed.] Having seeds germinating close to the parent plant.

synaptospore (sināp'tōspōr) *n.* [Gk. *synaptos*, joined; *sporos*, seed.] Aggregate spore; clinospores joined together.

synptychus (sināp'tikūs) *n.* [Gk. *syn*, with; *a*, together; *ptyche*, plate.] Aptychus in which paired plates are permanently united.

synarthrosis (sin'arthrō'sis) *n.* [Gk. *syn*, with; *arthron*, joint.] An articulation in which bone surfaces are in almost direct contact, fastened together by connective tissue or hyaline cartilage, with no appreciable motion.

synascus (sinās'kūs) *n.* [Gk. *syn*, together; *askos*, bag.] An ascogonium containing a number of asci.

syncarp (sin'kārp) *n.* [Gk. *syn*, with; *karpos*, fruit.] A syncarpium: an aggregate fruit with united carpels.

syncarpous (sīnkār'pūs) *a.* [Gk. *syn*, with; *karpos*, fruit.] Bearing a collective fruit; with carpels united.

syncarpy (sīnkār'pī) *n.* [Gk. *syn*, with; *karpos*, fruit.] Condition of having carpels united to form a compound ovary.

syncaryo,—see synkaryo.

syncerebrum (sīnsēr'ēbrūm) *n.* [Gk. *syn*, with; *L. cerebrum*, brain.] A secondary brain formed by union

with brain of one or more of ventral cord ganglia, in some arthropods.

syncheimadia (sínkimäd'ia) *n. plu.*

[Gk. *syn*, with; *cheimadion*, winter dwelling.] Societies overwintering together.

synchondrosis (sín'kōndrō'sis) *n.*

[Gk. *syn*, with; *chondros*, cartilage.]

A synarthrosis in which the connecting medium is cartilage.

synchorology (sín'kōrōl'ōji) *n.* [Gk.

syn, with; *choros*, place; *logos*, discourse.] Study of the distribution of plant or animal associations; geographical distribution of communities.

synchronic (sínkrōn'ik) *a.* [Gk. *syn*,

with; *chronos*, time.] Contemporary; existing at the same time, *appl. sciences*, etc. *Opp.* allochronic.

syncladous (sínklā'dūs) *a.* [Gk. *syn*,

together; *klados*, branch.] With offshoots or branchlets in tufts; *appl.* certain mosses.

synconium (sínkō'niūm) *n.* [Gk.

syn, with; *konos*, cone.] Hollow inflorescence axis of fig; synconus; syconium.

syncraniate (sínkrā'niāt) *a.* [Gk.

syn, with; *kranion*, skull.] Having vertebral elements fused with skull.

syncranterian (sínkrāntē'riān) *a.*

[Gk. *syn*, with; *kranteres*, wisdom teeth.] With teeth in a continuous row.

syncryptic (sínkrīp'tik) *a.* [Gk. *syn*,

with; *kryptos*, hidden.] *Appl.* animals alike, though unrelated, through common protective resemblance to surroundings.

syncytiotrophoblast,—syncytium.

syncytium (sínsit'ium) *n.* [Gk. *syn*,

with; *kytos*, hollow.] A multinucleated mass of protoplasm without differentiation into cells; outer stratum of trophoblast of mammalian ovum, the syncytiotrophoblast; plasmodium; *cf.* coenocyte.

syndactyl (sindāk'til) *a.* [Gk. *syn*,

with; *daktylos*, digit.] With fused digits, as in many birds.

syndactylism (sindāk'tilizm) *n.* [Gk.

syn, with; *daktylos*, digit.] Whole or part fusion of two or more digits.

syndesis (sindē'sis) *n.* [Gk. *syndesis*, a binding together.] Conjugation or fusion of homologous chromosomes in meiosis; synapsis.

syndesmology (sín'děsmōl'ōji) *n.*

[Gk. *syndesmos*, ligament; *logos*, discourse.] The branch of anatomy dealing with ligaments and articulations.

syndesmosis (sín'děsmō'sis) *n.* [Gk.

syndesmos, ligament.] A slightly movable articulation, with bony surfaces connected by an interosseous ligament; *cf.* symphysis.

syndrome (sín'drōm) *n.* [Gk. *syn*,

together; *dromein*, to run.] A group of concomitant symptoms.

synecology (sínēkōl'ōji) *n.* [Gk.

syn, together; *oikos*, household; *logos*, discourse.] Ecology of plant or of animal communities.

synecthry (sínēk'thri) *n.* [Gk. *syn*,

with; *echthros*, hatred.] Commensalism of synecthrans with mutual dislike.

synema,—synnema, *q.v.*

synenchyma (sínēng'kimā) *n.* [Gk.

syn, together; *engchyma*, infusion.] Fungous tissue composed of laterally closely joined hyphae.

syneresis (sínēr'ēsís) *n.* [Gk. *syn*,

together; *ereidein*, to press.] Contraction of a gel with expression of liquid; contraction of clotting blood and separation of serum.

synergic (sínēr'jik) *a.* [Gk. *synergos*,

co-operator.] Operating together; synergetic; *appl.* muscles which combine with prime movers and fixation muscles in movement; *appl.* system of muscles and nerves affecting a particular movement; *appl.* certain hormones.

synergid (sínēr'jid) *n.*, **sinergidae**

(sínēr'jide) *plu.* [Gk. *synergos*, co-operator.] Two help-cells lying beside ovum at micropylar end of embryo-sac of an ovule.

synethogametism (sínē'thōgāmēt-

izm) *n.* [Gk. *synethes*, well suited; *gametes*, spouse.] Ability of gametes to fuse; gametal compatibility. *Opp.* asynethogametism.

syngametic (sín'gámēt'ík) *a.* [Gk. *syn*, together; *gametes*, spouse.] *Pert.* union of morphologically similar cells; isogamic.

syngamy (sín'gāml) *n.* [Gk. *syn*, with; *gamos*, marriage.] Sexual reproduction; fusion of gametes.

syngenesious (sín'jēnēs'siūs) *a.* [Gk. *syn*, with; *genesis*, descent.] Having stamens united in cylindrical form by anthers; with anthers united.

syngensis (sínjēn'ēsís) *n.* [Gk. *syn*, with; *genesis*, descent.] Sexual reproduction; theory that germs of all human beings, past, present, and future, were created simultaneously, and that there are germs within germs *ad infinitum*; coenogenesis, *q.v.*

syngenetic (sín'jēnēt'ík) *a.* [Gk. *syn*, with; *genesis*, descent.] Sexually reproduced; descended from the same ancestors.

syngnaths (sín'gnāths) *n. plu.* [Gk. *syn*, with; *gnathos*, jaw.] Paired jaws or mouth-plates of Stelleroids.

syngonic (sínɡōn'ík) *a.* [Gk. *syn*, with; *gone*, seed.] Producing male and female gametes in the same gone.

syngynous,—epigynous, *q.v.*

synhesma (sínhēs'mā) *n.* [Gk. *syn*, with; *hesmos*, a swarm.] A swarm; a swarming society.

synizesis (sínzē'sís) *n.* [Gk. *synizesis*, contraction.] The attraction-figure associated with syndesis; contracted phase of nucleus during synapsis; myosis or contraction of pupil.

synekaryon (sínkār'íōn) *n.* [Gk. *syn*, with; *karyon*, nucleus.] Zygote nucleus resulting from fusion of pronuclei.

synekaryophyte (sínkār'íōfīt) *n.* [Gk. *syn*, with; *karyon*, nucleus; *phyton*, plant.] Diploid plant; sporophyte.

synekaryotic (sín'kāríōt'ík) *a.* [Gk. *syn*, with; *karyon*, nucleus.] Diploid, *appl.* nucleus.

synnema (sín'nēmā) *n.* [Gk. *syn*, with; *nema*, thread.] Bundle or

column of fused thread-like structures, as of conidiophores or of hyphae; coremium; the united stamen filaments of a monadelphous flower.

synochreate, **synocreate** (sínōk'-rēāt) *a.* [Gk. *syn*, with; *L. ocrea*, legging.] With stipules united, enclosing stem in a sheath.

synoecious (sínē'siūs), **synoicous** (sínōik'ūs) *a.* [Gk. *syn*, with; *oikos*, house.] Having antheridia and archegonia on same receptacle, or stamens and pistils on same flower, or male and female flowers on same capitulum.

synoekete (sínēkēt') *n.* [Gk. *syn*, with; *oiketes*, dweller.] A tolerated guest in a colony.

synoikous,—synoecious.

synosteosis (sín'ōstēō'sís) *n.* [Gk. *syn*, with; *osteon*, bone.] Ossification from two or more centres in the same bone, as from diaphysis and epiphyses in long bones; ankylosis, *q.v.*

synostosis,—synosteosis.

synotic tectum,—in higher vertebrates, a cartilaginous arch between otic capsules representing cartilaginous roof or tegmen of cranium in lower vertebrates.

synovia (sínō'vīā) *n.* [Gk. *syn*, with; *L. ovum*, egg.] Viscid, glairy secretion of synovial membrane.

synovial membrane,—inner stratum of articular capsule, connective tissue secreting a lubricating fluid for joints.

synoviparous (sín'ōvīp'ārūs) *a.* [Gk. *syn*, with; *L. ovum*, egg; *parere*, to beget.] Secreting synovia.

synpelmous (sínpēl'mūs) *a.* [Gk. *syn*, with; *pelma*, sole.] Having two tendons united before they go to separate digits.

synpolydesmic (sín'pōlīdēs'mík, -dēz-) *a.* [Gk. *syn*, with; *polys*, many; *desmos*, bond.] *Appl.* cyclomorior scales made up of fused monodesmic scales with continuous dentine layer.

synsacrum (sínsā'krūm) *n.* [Gk. *syn*, with; *L. sacrum*, sacred.] A mass

of fused vertebrae supporting the pelvic girdle of birds and of certain extinct saurians.

synsepalous (sinsĕp'ălūs) *a.* [Gk. *syn*, with; F. *sépale*, sepal.] With calyx composed of fused or united sepals.

synspermous (sinspĕr'mūs) *a.* [Gk. *syn*, with; *sperma*, seed.] Having several seeds united.

synsperous (sinspō'rūs) *a.* [Gk. *syn*, with; *sporos*, seed.] Propagating by cell conjugation, as in algae.

syntagmata (sintäg'mătā) *n. plu.* [Gk. *syn*, together; *tagma*, corps.] Groups of units or segments forming well-defined regions, as head, thorax, and abdomen of arthropods; *cf.* tagmata.

syntechnic (sintĕk'nĭk) *n.* [Gk. *syn*, with; *techne*, skill.] Resemblance in unrelated animals, due to environment; convergence.

syntelome (sintĕl'ōm) *n.* [Gk. *syn*, with; *telos*, end.] A compound telome.

syntenosis (sintĕnō'sis) *n.* [Gk. *syn*, with; *tenon*, sinew.] Tendinous articulation.

syntrophoblast (sĭntrōf'ōbläst) *n.* [Gk. *syn*, together; *trephein*, to nourish; *blastos*, bud.] Trophoblastic syncytium; plasmoditrophoblast.

syntropic (sĭntrōp'ĭk) *a.* [Gk. *syn*, together; *tropē*, turn.] Turning or arranged in the same direction, as ribs on one side.

syntype (sĭn'tĭp) *n.* [Gk. *syn*, with; *typos*, pattern.] Any one specimen of a series used to designate a species when holotype and paratypes have not been selected; cotype.

synusia (sĭnoo'siā) *n.* [Gk. *synousia*, a living together.] A plant community of relatively uniform composition, living in a particular environment and forming part of a phytocoenosis, *q.v.*

synzoospore (sĭnzō'ōspōr) *n.* [Gk. *syn*, with; *zoon*, animal; *sporos*, seed.] A group of zoospores which do not separate.

syringeal (sĭrĭn'jĕäl) *a.* [Gk. *syringx*, pipe.] *Pert.* the syrinx.

syringium (sĭrĭn'jiŭm) *n.* [Gk. *syringx*, pipe.] A syringe-like organ for ejection of disagreeable fluid of some insects.

syringograde (sĭring'gōgrād) *a.* [Gk. *syringx*, pipe; L. *gradus*, step.] Jet-propelled, moving by alternate suction and ejection of water through siphons, as *Loligo* and *Salpa*.

syrinx (sĭr'ĭngks) *n.* [Gk. *syringx*, pipe.] Vocal organ of birds, at base of trachea.

systaltic (sĭstäl'tĭk) *a.* [Gk. *systellein*, to draw in.] Contractile; alternately contracting and dilating.

systemic circulation,—course of blood from left ventricle through the body to right atrium, *opp.* pulmonary or lesser circulation.

systemic heart,—heart of invertebrates, and auricle and ventricle of left side of heart of higher vertebrates. *Opp.* respiratory heart.

systilius,—systylius, *q.v.*

systole (sĭs'tōlē) *n.* [Gk. *systole*, drawing together.] Contraction of heart causing circulation of blood; contraction of any contractile cavity. *Opp.* diastole.

systrophe (sĭs'trōffĭ) *n.* [Gk. *systrophe*, a gathering.] An aggregation of starch grains in chloroplasts, induced by illumination.

systylius (sĭsti'lĭŭs) *n.* [Gk. *syn*, with; *stylos*, column.] The columella-lid of some mosses.

systylous (sĭsti'lŭs) *a.* [Gk. *syn*, with; *stylos*, column.] With coherent styles; with fixed columella-lid, as in mosses.

syzygium (sĭzĭj'ĭŭm) *n.* [Gk. *syn*, with; *zygon*, yoke.] Group of associated gregarines.

syzygy (sĭz'ĭji) *n.* [Gk. *syn*, with; *zygon*, yoke.] A close suture of two adjacent arms, found in crinoids; a number of individuals, two to five, adhering in strings in association of gregarines; reunion of chromosome fragments at meiosis.

T

tables (tā'blz) *n. plu.* [L. *tabula*, board.] Outer and inner layers of flat compact bones, especially of skull.

tabula (tāb'ulā) *n.*, **tabulae** (tāb'ulē) *plu.* [L. *tabula*, table.] Horizontal partitions traversing vertical canals of Hydrocorallina and of tabulate corals.

tabular (tāb'ulār) *a.* [L. *tabula*, table.] Arranged in a flat surface or table; flattened, as certain cells.

tabulare (tāb'ulārē) *n.* [L. *tabula*, table.] Skull bone posterior to parietal in some vertebrates.

tachyauxesis (tāk'ióksē'sis) *n.* [Gk. *tachys*, quick; *auxesis*, growth.] Relatively quick growth; growth of a part at a faster rate than that of the whole. *Opp.* bradyauxesis.

tachygen (tāk'ijēn) *n.* [Gk. *tachys*, quick; *gennaein*, to produce.] A structure originating abruptly in evolution.

tachygenesis (tāk'ijēn'ēsis) *n.* [Gk. *tachys*, quick; *genesis*, descent.] Development with omission of certain embryonic stages, as in some crustaceans, or of nymphal stages, as in some insects; accelerated development, in phylogeny. *Opp.* bradygenesis.

tachysporous (tākis'pōrūs) *a.* [Gk. *tachys*, quick; *sporos*, seed.] Dispersing seeds quickly.

tachytelic (tāk'itēl'ik) *a.* [Gk. *tachys*, quick; *telos*, fulfillment.] Evolving at a rate faster than the standard rate, *opp.* bradytelic; *cf.* horotelic.

tactic (tāk'tik) *a.* [Gk. *taktos*, arranged.] *Pert.* taxis, *q.v.*; *appl.* movements from place to place in response to stimuli; *appl.* stimuli inducing locomotion.

tactile (tāk'til) *a.* [L. *tactilis*, that may be touched.] Serving the sense of touch, as special end-organs or tangoreceptors; *appl.* cells, cones, corpuscles, discs, hairs, etc.

tactor (tāk'tōr) *n.* [L. *tactus*, touch.] Tactile end-organ; tangoreceptor.

tactual (tāk'tūāl) *a.* [L. *tactus*, touch.] *Pert.* sense of touch.

taenia (tē'nīā) *n.* [L. *taenia*, ribbon.] A band, as of nerve or of muscle; ligula, *q.v.*

taeniate (tē'nīāt) *a.* [L. *taenia*, ribbon.] Ribbon-like; striped.

taenidium (tēnīd'ium) *n.*, **taenidia** *plu.* [Gk. *tainia*, ribbon; *idion*, *dim.*] Spiral ridge of cuticle strengthening the chitinous layer of insect tracheae and tracheoles.

taenioid (tē'nīoid) *a.* [Gk. *tainia*, ribbon; *eidos*, form.] Ribbon-shaped; like a tape-worm.

taenioles (tē'nīōlz) *n. plu.* [L. *taeniola*, small ribbon.] Four longitudinal gastric ridges of a scyphula.

tagmata (tāg'mātā) *n. plu.* [Gk. *tagma*, corps.] Units; parts; segments; molecular groups; *cf.* syntagmata.

taiga (tigā) *n.* [Russ.] Northern coniferous forest zone, especially in Siberia.

talocalcaneal (tāl'ōkālkā'nēāl) *a.* [L. *talus*, ankle-bone; *calcaneum*, heel.] *Pert.* talus and calcaneus; *appl.* articulation, ligaments.

talocrural (tāl'ōkroor'āl) *a.* [L. *talus*, ankle; *crus*, leg.] *Pert.* ankle and shank bones; *appl.* articulation: the ankle joint.

talon (tāl'ōn) *n.* [F., from L. *talus*, ankle.] Claw of bird of prey; posterior heel of molar tooth.

taloscaphoid (tāl'ōskāf'oid) *a.* [L. *talus*, ankle; Gk. *skaphe*, boat; *eidos*, form.] *Pert.* talus and scaphoid bone.

talus (tāl'lūs) *n.* [L. *talus*, ankle.] The ankle-bone or astragalus.

tandem,—*appl.* satellites separated from each other by a constriction.

tangoreceptor (tāng'gōrēsēp'tōr) *n.* [L. *tangere*, to touch; *receptor*, receiver.] A receptor sensitive to slight pressure differences.

tapesium (tāpē'ziūm) *n.* [Gk. *tapes*, rug.] A dense outer mycelium bearing ascus-producing hyphae.

tapetal (tāpē'tāl) *a.* [L. *tapete*, carpet.] *Pert.* tapetum; *appl.* cells.

tapetum (tăpě'tŭm) *n.* [L. *tapete*, carpet.] Outer and posterior part of choroid; pigment layer of retina; main body of fibres of corpus callosum; special nutritive layer investing sporogenous tissue of sporangium.

taphrophyte (tăf'rōfit) *n.* [Gk. *taphros*, ditch; *phylon*, plant.] Ditch-dwelling plant.

tap-root (tăp'root) *n.* [M.E. *tappe*, short pipe; A.S. *wyrt*, root.] An elongated parent root with secondary roots in acropetal succession; persistent primary root.

tarsal (tăr'săl) *a.* [Gk. *tarsos*, sole of foot.] *Pert.* tarsus, of foot and eyelid; *appl.* arteries, bones, glands.

tarsale (tărsăl'le) *n., tarsalia* (tărsăl'iă) *plu.* [Gk. *tarsos*, sole of foot.] Ankle-bones.

tarsi (tăr'si) *n. plu.* [Gk. *tarsos*, sole of foot.] *Plu.* of tarsus; two thin elongated plates of dense connective tissue helping to support the eyelid.

tarsomeres (tăr'sömērŷ) *n. plu.* [Gk. *tarsos*, sole of foot; *meros*, part.] The two parts of dactylopodite in spiders, basitarsus and telotarsus.

tarsometatarsal (tăr'sömēt'ătăr'săl) *a.* [Gk. *tarsos*, sole of foot; *meta*, beyond.] *Pert.* an articulation of tarsus with metatarsus.

tarsometatarsus (tăr'sömēt'ătăr'sŭs) *n.* [Gk. *tarsos*, sole of foot; *meta*, beyond.] A short straight bone of bird's leg formed by fusion of distal row of tarsals with second to fifth metatarsals.

tarsophalangeal (tăr'söfălăn'jěäl) *a.* [Gk. *tarsos*, sole of foot; *phalangx*, line of battle.] *Pert.* tarsus and phalanges.

tarsus (tăr'sŭs) *n.* [Gk. *tarsos*, sole of foot.] Ankle-bones, usually consisting of two rows; segment of leg distal to tibia, in insects; telotarsus or second dactylopodite in spiders; fibrous connective tissue plate of eyelid.

tartareous (tărtăr'rěŭs) *a.* [L.L. *tartarum*, an acid salt.] Having a rough and crumbling surface.

tassel (tăsl) *n.* [O.F. *tasel*, clasp.] Male inflorescence of maize plant; appendix colli of goat, sheep, pig, etc.

taste-bud,—an end-organ of taste, consisting of a flask-shaped group of gustatory and supporting cells found on tongue and adjacent parts; a gustatory calyculus.

tauidion (tōid'ŭŏn) *n.* [Gk. *tau*, T; *idion*, *dim.*] Part of cranial floor of Palaeospondylus.

tautomeric (tō'tömēr'ik) *a.* [Gk. *tauto*, the same; *meros*, part.] *Pert.* the same part; *appl.* cells, neurones with axis cylinders passing into white matter of same side of spinal cord.

tautonym (tō'tōnīm) *n.* [Gk. *tauto*, the same; *onyma*, name.] The same name given to a genus and one of its species or subspecies.

tautotype (tō'tōtip) *n.* [Gk. *tautos*, the same; *typos*, pattern.] A genotype by virtue of tautonymy.

taxeopodous (tăk'sěöp'ōdŭs) *a.* [Gk. *taxis*, arrangement; *pous*, foot.] Having proximal and distal tarsal bones in straight lines parallel to limb axis.

taxis (tăk'sis) *n.* [Gk. *taxis*, arrangement.] A tendency of an organism towards (positive) or away from (negative) a source of stimulus; a directed reaction of a motile animal; *cf.* tropism.

Tawara's node [S. *Tawara*, Japanese pathologist]. The atrioventricular node.

taxon (tăk'sŏn) *n.* [Gk. *taxis*, arrangement.] Any definite unit in classification of plants and animals; taxonomic unit.

taxonomy (tăksŏn'ŏmī) *n.* [Gk. *taxis*, arrangement; *nomos*, law.] The laws of classification as applied to natural history.

taxy,—taxis.

tectal (těk'tăl) *a.* [L. *tectum*, roof.] Of or *pert.* tectum.

tectology (těk'tŏl'ŏjī) *n.* [Gk. *tektion*, builder; *logos*, discourse.] Morphology in which an organism is considered as a group of

morphological as distinct from physiological units or individuals.

tectorial (tĕktō'riāl) *a.* [L. *tectorius*, *pert.* cover.] Covering; *appl.* membrane covering the spiral organ of Corti.

tectorium (tĕktō'riūm) *n.* [L. *tectorium* cover.] Membrane of Corti; the coverts of birds.

tectospondylic (tĕk'tōspōndil'ik) *a.* [L. *tectus*, covered; Gk. *sphondylos*, vertebra.] Having vertebrae with several concentric rings of calcification, as in some elasmobranchs; tectospondylous.

tectostracum (tĕktōs'trākūm) *n.* [L. *tectum*, cover; Gk. *ostrakon*, shell.] Thin, waxy outer covering of exoskeleton, as of Acarina.

tectotype (tĕk'tōtip) *n.* [Gk. *tektōn*, builder; *typos*, pattern.] Description of a species, based on microscopical examination of a prepared section; the section used.

tectrices (tĕktri'sēz, tĕk'trisēz) *n. plu.* [L. *tectus*, covered.] Wing-coverts; small feathers covering bases of remiges.

tectum (tĕk'tūm) *n.* [L. *tectum*, roof.] A roof-like structure, as corpora quadrigemina forming roof of mesencephalon; dorsal wall of capitulum in Acarina.

teeth (tĕth) *n. plu.* [A.S. *toth*, tooth.] Hard bony growths on maxillae, premaxillae, and mandibles of mammals; growths of similar, of chitinous, or of horny formation borne on jaws, tongue, or pharynx.

tegmen (tĕg'mĕn) *n.* [L. *tegmen*, covering.] The integument, endopleura, or inner seed-coat; calyx covers of Crinoidea; ninth abdominal tergite of male insects; thin hardened fore-wing of Orthoptera, Phasmida, and Dictyoptera; plate of bone over tympanic antrum.

tegmen cranii,—roof of chondrocranium.

tegumentum (tĕgmĕn'tūm) *n.* [L. *tegmen*, covering.] A protective bud-scale; dorsal part of cerebral peduncles; a tegmen.

tegmina,—*plu.* of tegmen.

tegula (tĕg'ulā) *n.* [L. *tegula*, tile.] A small sclerite on mesothorax overhanging articulation of wings in Lepidoptera and Hymenoptera; a small lobe or alula at wing-base of Diptera.

tegular (tĕg'ulār) *a.* [L. *tegula*, tile.] *Pert.* a tegula; consisting of a tile-like structure.

tegumen (tĕg'ūmĕn) *n.* [L. *tegumen*, cover.] Tegmen; ninth abdominal tergite, as in Lepidoptera.

tegument,—integument.

tegumental (tĕg'ūmĕn'tāl) *a.* [L. *tegumentum*, covering.] *Pert.* an integument; *appl.* gland cells of epidermis which secrete epicuticle in various arthropods.

tela (tĕ'lā) *n.* [L. *tela*, web.] A web-like tissue; *appl.* chorioidea, folds of the pia mater forming membranous roof of third and fourth ventricles; *appl.* interlacing fibrilliform or hyphal tissue of fungi, tela contexta.

telamon (tĕl'āmōn) *n.* [Gk. *telamon*, supporting strap.] Chitinated curved plate in lateral wall of cloaca in male nematodes.

telarian (tĕlā'riān) *a.* [L. *tela*, web.] Web-spinning.

teleblem,—teleblema.

teleceptor (tĕlēsĕp'tōr) *n.* [Gk. *tele*, far; L. *capere*, to take.] A sense organ which receives stimuli originating at a distance; distance receptor; distoceptor, telereceptor, teloreceptor.

telegamic (tĕlēgām'ik) *a.* [Gk. *tele*, far; *gamos*, marriage.] Attracting females from a distance, *appl.* scent-apparatus of butterflies.

telegenesis (tĕlējĕn'ĕsis) *n.* [Gk. *tele*, afar; *genesis*, descent.] Artificial insemination.

telegony (tĕlēg'ōni) *n.* [Gk. *tele*, far; *gonos*, offspring.] The supposed influence of a male parent on offspring, subsequent to his own, of the same female parent by another sire.

teleianthous (tĕl'iān'thūs) *a.* [Gk. *teleios*, complete; *anthos*, flower.

- Appl.* a flower having both gynoeceum and androecium.
- teleiochrysalis** (těl'fökrís'älis) *n.* [Gk. *teleios*, complete; *chrysalis*, from *chrysos*, gold.] Nymph during the resting stage preceding the adult form of certain mites.
- telémetacarpal** (těl'émētākār'pāl) *a.* [Gk. *tele*, far; *meta*, after; *karpōs*, wrist.] *Appl.* condition of retaining distal elements of metacarpals, as in some Cervidae. *Opp.* plesio-metacarpal.
- telemorphosis** (těl'émôr'fōsis, -môr-fō'sis) *n.* [Gk. *tele*, far; *morphosis*, a shaping.] Alteration of form in response to a distant stimulus, as of hypha or zygomorph in response to another hypha or zygomorph.
- telencephalon** (těl'ēnkēf'ālōn, -sēf-) *n.* [Gk. *tele*, far; *engkephalos*, brain.] The anterior part of fore-brain, including the cerebral hemispheres, lateral ventricles, optic part of hypothalamus, and anterior portion of third ventricle; endbrain.
- teleoblemma** (těl'ēoblēmā) *n.* [Gk. *teleos*, complete; *blēma*, coverlet.] Universal veil; volva; teleblem, teleoblem.
- teleodont** (těl'ēōdōnt) *a.* [Gk. *teleos*, complete; *odont*, tooth.] *Appl.* forms of stag-beetles with largest mandible development.
- teleology** (těl'ēōl'ōji) *n.* [Gk. *teleos*, complete; *logos*, discourse.] The doctrine of adaptation to a definite purpose, and that evolution is purposive.
- teleophore** (těl'ēōfōr) *n.* [Gk. *teleos*, complete; *pherein*, to bear.] A gonotheca, or transparent case enclosing medusae of Hydrozoa.
- teleoptile** (těl'ēōtīl, -ptīl) *n.* [Gk. *teleos*, complete; *ptilon*, feather.] A feather of definitive plumage; *cf.* neoptile; neosoptile; a pennaceous feather; *cf.* mesoptile, metaptile.
- teleorganic** (těl'ēōrgān'ik) *a.* [Gk. *telein*, to fulfil; *organon*, instrument.] *Appl.* functions vital to an organism.
- teleosis** (těl'ēōsis) *n.* [Gk. *teleosis*, completion.] Purposive development or evolution.
- teleotrocha**,—trochosphere, *q.v.*
- telereceptor**,—teleceptor, *q.v.*
- telescopiform** (těl'ēskōp'ifōrm) *a.* [Gk. *tele*, far; *skopein*, to view; *L. forma*, shape.] Having joints that telescope into each other.
- telethmoid**,—prenasal, *q.v.*
- teleutosorus** (tělū'tōsō'rūs) *n.* [Gk. *teleute*, completion; *soros*, heap.] A group of developing teleutospores; sorus of last summer-stage of certain rust fungi; telium.
- teleutospore** (tělū'tōspōr) *n.* [Gk. *teleute*, completion; *sporos*, seed.] In Uredinales, a winter-spore formed in autumn, germinating in following spring; teliospore, teleutobud or winter-bud, teleutogonidium, brand spore.
- teleutospiferous** (tělū'tōspōrif'ērūs) *a.* [Gk. *teleute*, completion; *sporos*, seed; *L. ferre*, to carry.] *Appl.* rusts bearing teleutospores; teliosporiferous.
- telia**,—*plu.* of telium.
- telial**,—*pert.* or having, telia.
- telic** (těl'ik) *a.* [Gk. *telos*, end.] Purposive; *pert.* teleosis.
- teliosorus**,—teleutosorus, *q.v.*
- teliospore**,—teleutospore, *q.v.*
- teliostage** (těl'fōstāj) *n.* [Gk. *telos*, end; *F. étage*, stage, from *L. stare*, to stand.] Last summer-stage of certain fungi in which telia are produced; teleutoform stage.
- telium** (těl'ium) *n.* [Gk. *telos*, end.] A teleutosorus.
- teloblast** (těl'ōblāst) *n.* [Gk. *telos*, end; *blastos*, bud.] A stage derived from tritoblast and dividing into sporoblasts, in Neosporidia; a large cell which buds forth rows of smaller cells, as in annelid and mollusc embryos.
- telocentric** (těl'ōsēn'trik) *a.* [Gk. *telos*, end; *kentron*, centre.] With terminal centromere, *appl.* chromosomes; *cf.* acrocentric, metacentric.
- telocoele** (těl'ōsēl) *n.* [Gk. *telos*, end; *koilos*, hollow.] First, or second, ventricle of brain; lateral ventricle; telencephalic vesicle.

telodendrion (těl'ödēn'drīōn) *n.* [Gk. *telos*, end; *dendrion*, *dim.* of *dendron*, tree.] The terminal arborisation of an axon.

telofemur (těl'ōfē'mūr) *n.* [Gk. *telos*, end; *L. femur*, thigh.] Distal segment of femur, between basifemur and genu, in certain Acarina.

telokinesis (těl'ōkīnē'sis) *n.* [Gk. *telos*, end; *kinesis*, movement.] Last stage of mitosis when daughter-nuclei are re-formed; changes in cell after telophase.

telolecithal (těl'ōlē's'ithāl) *a.* [Gk. *telos*, end; *lekithos*, yolk.] Having yolk accumulated in one hemisphere, as in mesolecithal and polylecithal eggs.

telolemma (těl'ōlēm'ā) *n.* [Gk. *telos*, end; *lemma*, skin.] A capsule containing a nerve-fibre termination, in neuromuscular spindles; end-sheath.

telome (těl'ōm) *n.* [Gk. *telos*, end.] Morphological unit, consisting of stalk and sporangium, in cormophytes; sporophytic unit; terminal part of a mesome.

telomere (těl'ōmēr) *n.* [Gk. *telos*, end; *meros*, part.] End of each chromosome arm distal to centromere.

telomitic (těl'ōmīt'ik) *a.* [Gk. *telos*, end; *mitos*, thread.] Having chromosomes attached endwise to spindle-fibres; having centromere terminal.

telophase (těl'ōfāz) *n.* [Gk. *telos*, end; *phasis*, aspect.] Final phase of mitosis with cytoplasm division.

telophragma (těl'ōfrāg'mā) *n.* [Gk. *telos*, end; *phragma*, fence.] The Z-disc or Krause's membrane separating sarcomeres of muscle fibrils.

telosynapsis,—telosyndesis, *q.v.*

telosyndesis (těl'ōsīndē'sis) *n.* [Gk. *telos*, end; *syndesis*, binding together.] End to end union of chromosome halves in meiosis.

telotarsus (těl'ōtār'sūs) *n.* [Gk. *telos*, end; *tarsos*, sole of foot.] Distal part or tarsus of dactylopodite of spiders. *Cf.* tarsomeres.

telotaxis (těl'ōtāk'sis) *n.* [Gk. *telos*, end; *taxis*, arrangement.] Movement along line between animal and source of stimulus; goal orientation.

telotroch (těl'ōtrōk) *n.* [Gk. *telos*, end; *trochos*, wheel.] Pre-anal tuft of cilia of trochosphere.

telotrocha,—trochosphere, *q.v.*

telotrophic (těl'ōtrōf'ik) *a.* [Gk. *telos*, end; *trophe*, nourishment.] Acrotrophic, *appl.* ovarioles.

telson (těl'sōn) *n.* [Gk. *telson*, extremity.] The unpaired terminal abdominal segment of Crustacea and Limulus; curved caudal spine or sting in scorpions; twelfth abdominal segment in Protura and in some insect embryos.

telum (těl'üm) *n.* [Gk. *telos*, end.] Last abdominal segment of insect.

temnospondylous (tēm'nōspōn'dilūs) *a.* [Gk. *temnein*, to cut; *sphondylos*, vertebra.] With vertebrae not fused but in articulated pieces; *cf.* stereospondylous.

temperature coefficient,—quotient of two growth rates at temperatures differing by 10° C.

temporal (tēm'pōrāl) *a.* [L. *tempora*, temples.] *Pert.*, or in region of, temples.

temporalis,—broad radiating muscle arising from whole of temporal fossa and extending to coronoid process of mandible.

temporomalar (tēm'pōrōmālār) *a.* [L. *tempora*, temples; *mala*, cheek.] *Appl.* branch of maxillary nerve supplying temple and cheek, zygomatic nerve.

temporomandibular (tēm'pōrōmāndīb'ulār) *a.* [L. *tempora*, temples; *mandibula*, jaw.] *Appl.* articulation: the hinge of the jaws; *appl.* external lateral ligament between zygomatic process of temporal bone and neck of mandible.

temporomaxillary (tēm'pōrōmākxil'ārī) *a.* [L. *tempora*, temples; *maxilla*, jaw.] *Pert.* temporal and maxillary region; *appl.* posterior facial vein.

tenacle,—tenaculum.

tenaculum (tĕnāk'ūlŭm) *n.* [L. *tenax*, holding.] Holdfast of algae; filaments surrounding ostiole of ascus and containing the spore mass in Haerangiomyces; an ectodermal area modified for adhesion of sand-grains, in certain sea-anemones; in teleosts, fibrous band extending from eye-ball to skull.

tendines,—tendons; *plu.* of tendo.

tendinous (tĕn'dīnŭs) *a.* [L. *tendere*, to stretch.] Of the nature of a tendon; having tendons.

tendo calcaneus, **tendo Achillis**,—the tendon of the heel.

tendon (tĕn'dŏn) *n.* [L. *tendo*, tendon, from *tendere*, to stretch.] A white glistening fibrous cord connecting a muscle with a movable structure.

tendon cells,—cells in white fibrous connective tissue, with wing-like processes extending between bundles of fibres.

tendon reflex, — contraction of muscles in a state of slight tension by a tap on their tendons.

tendrill (tĕn'drīl) *n.* [O.F. *tendrillon*, tender sprig.] A specialised twining stem or leaf by which creepers support themselves.

tendrill-fibres, — cerebellar fibres with branches adhering to dendrites of Purkinje's cells; clinging fibres; *cf.* basket cells.

tendrillar (tĕn'drīlār) *a.* [O.F. *tendrillon*, tender sprig.] Acting as a tendrill; twining.

tenent (tĕn'ĕnt) *a.* [L. *tenere*, to hold.] Holding; *appl.* tubular hairs with expanded tips, of arolium; *appl.* hairs secreting an adhesive fluid, on tarsus of spiders.

teneral (tĕn'ĕrāl) *a.* [L. *tener*, tender.] Immature; *appl.* stage on emergence from nymphal integument.

tenia,—taenia, *q.v.*

tenofibrils (tĕn'ŏfībrīlz) *n. plu.* [L. *tenere*, to hold; *fibrilla*, small fibre.] Delicate fibrils connecting epithelial cells and passing through intercellular bridges.

Tenon, capsule of [J. R. Tenon, French anatomist]. The fibro-elastic membrane surrounding the eye-ball from optic nerve to ciliary region; fascia bulbi.

tenoreceptor (tĕn'ŏrĕšĕp'tŏr) *n.* [Gk. *tenon*, tendon; L. *recipere*, to receive.] A proprioceptor in tendon reacting to contraction.

tensor (tĕn'sŏr) *a.* [L. *tendere*, to stretch.] *Appl.* muscles which stretch parts of body.

tentacles (tĕn'tāk lz) *n. plu.* [L.L. *tentaculum* feeler.] Slender flexible organs on head of many invertebrate animals, used for feeling, exploration, prehension, or attachment; adhesive structures of insectivorous plants, as of sundew; *cf.* antenna.

tentacular (tĕntāk'ūlār) *a.* [L.L. *tentaculum*, feeler.] *Pert.* tentacles; *appl.* a canal branching from per-radial canal to tentacle base in Ctenophores.

tentaculiferous (tĕntāk'ūlīf'ĕrŭs) *a.* [L.L. *tentaculum*, feeler; L. *ferre*, to carry.] Bearing tentacles.

tentaculiform (tĕntāk'ūlīfŏrm) *a.* [L.L. *tentaculum*, feeler; L. *forma*, shape.] Like a tentacle in shape or structure.

tentaculocyst (tĕntāk'ūlŏsīst) *n.* [L.L. *tentaculum*, feeler; Gk. *kystis*, bladder.] A sense organ of Trachylinae, a club-shaped body on umbrella margin, containing one or more lithites.

tentaculozooids (tĕntāk'ūlŏzŏ'oidz) *n. plu.* [L.L. *tentaculum*, feeler; Gk. *zoon*, animal; *eidos*, form.] Long slender tentacular individuals at outskirts of hydrozoan colony.

tentaculum (tĕntāk'ūlŭm) *n.* [L.L. *tentaculum*, feeler.] A tentacle or feeler.

tentilla (tĕntīl'ā), **tentillum** (tĕntīl'ŭm) *n.* [L. *tentare*, to feel.] A tentacle branch.

tentorium (tĕntŏ'rīŭm) *n.* [L. *tentorium*, tent.] A chitinous framework supporting brain of insects; a transverse fold of dura mater, ossified in some mammals, between

cerebellum and occipital lobes of brain.

tepāl (tép'āl) *n.* [F. *tépale*, from *pétale*.] A perianth segment which is sepaloid or petaloid.

tephrous (tэф'rus) *a.* [Gk. *tephra*, ashes.] Ashy-grey; cinereous.

teratology (tэр'átol'óji) *n.* [Gk. *teras*, monster; *logos*, discourse.] Science treating of malformations and monstrosities of plants and animals.

tercine (tэр'sín) *n.* [L. *tertius*, third.] The third coat of an ovule or a layer of the second.

tereбра (tэр'эбрá) *n.* [L. *tereбра*, borer.] An ovipositor modified for boring, sawing, or stinging, as in certain Hymenoptera.

terebrate (tэр'эбрát) *a.* [L. *tereбра*, borer.] Furnished with a boring organ; adapted for boring.

terebrator,—a boring organ; tri-chogyne, *q.v.*, of lichens.

teres (tэр'рэз) *n.* [L. *teres*, rounded.] The round ligament of liver; two muscles, *teres major* and *minor*, extending from scapula to humerus.

terete (tэрэт'), **teretial** (tэрэ'shiál) *a.* [L. *teres*, rounded.] Nearly cylindrical in section, as stems.

tergal (tэр'gál) *a.* [L. *tergum*, back.] Situated at back; *pert. tergum*.

tergminate (tэр'jem'inát) *a.* [L. *ter*, thrice; *geminí*, twins.] Thrice forked with twin leaflets.

tergite (tэр'jit) *n.* [L. *tergum*, back.] Dorsal chitinous plate of each segment of most Arthropoda; a tergal sclerite.

tergosternal (tэр'göst'эр'nál) *a.* [L. *tergum*, back; *sternum*, breast-bone.] Connecting tergite and corresponding sternite; *appl.* muscles, in insects.

tergum (tэр'güm) *n.* [L. *tergum*, back.] The back generally; dorsal portion of arthropod somite; notum; dorsal plate of barnacles.

terminal (tэр'mínál) *a.* [L. *terminus*, end.] *Pert.*, or situated at, the end, as terminal bud at end of twig; *appl.* a cranial nerve ending in

nasal mucosa, the *nervus terminalis* or preoptic nerve; *appl.* filament, slender prolongation of ovariole; *appl.* chiasma at extreme end of chromatid; *appl.* gene at end of telomere.

terminalia (tэрminá'liá) *n. plu.* [L. *terminus*, end.] External genitalia, or hypopygium, in Diptera.

terminalisation (tэр'mínállzá'shün) *n.* [L. *terminus*, end.] Movement of chiasmata towards chromosome ends during diplotene and diakinesis.

termitarium (tэр'mítá'ríüm) *n.* [L. *termes*, wood-worm.] An elaborately constructed nest of a termite colony.

termitophil (tэр'mítöfil) *a.* [L. *termes*, wood-worm; Gk. *philein*, to love.] Living in termite nest; *appl.* certain fungi and insects.

termones (tэр'mönz) *n. plu.* [Gk. *termos*, limit.] Sex-determining substances or hormones, as in certain protozoa.

ternary (tэр'nári), **ternate** (tэр'nát) *a.* [L. *terni*, three each.] Arranged in threes; having three leaflets to a leaf; trifoliolate; trilateral, *appl.* symmetry.

ternatopinnate (tэр'nátöpin'át) *a.* [L. *terni*, three each; *pinna*, feather.] Having three pinnate leaflets to each compound leaf.

terraneous (tэрä'nëüs) *a.* [L. *terra*, earth.] *Appl.* land vegetation.

terrestrial (tэрэs'triál) *a.* [L. *terra*, earth.] *Appl.* organisms living on land; *cf.* aerial, aquatic.

terricolous (tэрik'ölüs) *a.* [L. *terra*, earth; *colere*, to inhabit.] Inhabiting the soil; terrestrial, *q.v.*

terrigenous (tэrij'enüs) *a.* [L. *terra*, earth; *gignere*, to produce.] Derived from land; *appl.* deposits.

territory (tэр'itöri) *n.* [L. *territorium*, domain.] An area defended by a bird shortly before and during the breeding season; an area sufficient for food requirements of an animal or aggregation of animals; foraging area.

tertiary (těr'shāl) *n.* [L. *tertius*, third.] A scapular or tertiary wing-feather.

tertiary (těr'shālri) *a.* [L. *tertius*, third.] *Appl.* roots produced by secondary roots; *appl.* inner wall of some wood fibres; tertiary, *appl.* wing feathers of humerus, otherwise scapulars.

Tertiary. *Appl.* era following the Mesozoic and preceding Quaternary; earlier period of Caenozoic era, Eocene to Pliocene epochs.

tessellated (tēs'elātēd) *a.* [L. *tessella*, small stone cube.] Checkered; *appl.* markings or colours arranged in squares; *appl.* epithelium.

tesserae (tēs'erē) *n. plu.* [L. *tessera*, square block.] Prisms of lime, in calcification of cartilage.

test (tēst) *n.* [L. *testa*, shell.] A shell or hardened outer covering.

testa (tēs'tā) *n.* [L. *testa*, shell.] Test; outer coat of seed, or epispERM.

testaceous (tēstā'sēūs) *a.* [L. *testa*, shell.] Protected by a shell-like outer covering.

testes,—*plu.* of testis.

testicle (tēs'tikl) *n.* [L. *dim.* of *testis*, testicle.] Testis.

testicular (tēstik'ulār) *a.* [L. *dim.* of *testis*, testicle.] Having two oblong tubercles, as in some orchids; testicle-shaped; testiculate; *pert.* testis.

testis (tēs'tis) *n.* [L. *testis*, testicle.] Male reproductive gland producing spermatozoa.

testosterone (tēs'tōstērōn) *n.* [L. *testis*, testicle; Gk. *stear*, suet.] Testicular hormone; $C_{19}H_{28}O_2$.

testudinate (tēstū'dīnāt) *a.* [L. *testudo*, tortoise.] Having a hard protective shell, as in tortoise.

tetaniform (tēt'ānifōrm) *a.* [Gk. *tetanos*, stretched; L. *forma*, shape.] Like tetanus; tetanoid.

tetanise (tēt'āniz) *v.* [Gk. *tetanos*, stretched.] To cause a muscle to contract by a series of induction shocks.

tetanus (tēt'ānūs) *n.* [Gk. *tetanos*, stretched.] State of a muscle under-

going a continuous fused series of contractions due to electrical stimulation; a rigid state of plant tissue caused by continued stimulus.

tethelin (tēth'ēlin) *n.* [Gk. *tethelos*, swelling.] Growth-promoting principle isolated from pituitary body.

tetrabranchiate (tēt'rābrāng'kiāt) *a.* [Gk. *tetras*, four; *branchia*, gills.] Having four gills.

tetracarpellary (tēt'rākār'pēlārī) *a.* [Gk. *tetras*, four; *karpōs*, fruit.] Having four carpels.

tetracerous (tēt'rās'erūs) *a.* [Gk. *tetras*, four; *keras*, horn.] Four-horned.

tetrachaenium (tētrākē'nīum) *n.* [Gk. *tetras*, four; *a*, not; *chainēin*, to gape.] Four adherent achenes, as constituting fruit of Labiatae.

tetrachotomous (tēt'rākōt'ōmūs) *a.* [Gk. *tetracha*, fourfold; *tome*, cutting.] Divided up into fours.

tetracoccus (tēt'rākōk'ūs) *n.* [Gk. *tetras*, four; *kōkkos*, kernel.] Any minute organism found in groups of four.

tetracotyledonous (tēt'rākōtilē'dōn-ūs) *a.* [Gk. *tetras*, four; *kōtyledon*, cup-like hollow.] With four cotyledons.

tetracrepid (tēt'rākrep'id) *a.* [Gk. *tetras*, four; *krepis*, edge.] *Appl.* a minute caltrop or four-rayed spicule.

tetract (tēt'rākt) *n.* [Gk. *tetras*, four; *aktis*, ray.] A four-rayed spicule.

tetractine (tēt'rāk'tīn) *n.* [Gk. *tetras*, four; *aktis*, ray.] A spicule of four equal and similar rays meeting at equal angles; a tetraxon.

tetracyclic (tēt'rās'klik) *a.* [Gk. *tetras*, four; *kyklos*, circle.] With four whorls.

tetracyte (tēt'rāsīt) *n.* [Gk. *tetras*, four; *kytos*, hollow.] One of four daughter-cells formed from a mother-cell by meiosis.

tetrad (tēt'rād) *n.* [Gk. *tetras*, four.] A group of four; *appl.* four spores formed by first and second meiotic divisions of spore mother-cell; four-cell stage in development of bryophytes and pteridophytes; a

quadruple group of chromatids at meiosis; a quadrangular mass or loop of chromosomes in a stage of mitosis; *cf.* quartet.

tetradactyl (tět'radäk'til) *a.* [Gk. *tetras*, four; *daktylos*, finger.] Having four digits.

tetradidymous (tět'radid'imüs) *a.* [Gk. *tetras*, four; *didymos*, double.] Having or *pert.* four pairs.

tetradymous (tět'rad'imüs) *a.* [Gk. *tetradymos*, fourfold.] Having four cells, *appl.* spores.

tetradynamous (tět'radin'amüs) *a.* [Gk. *tetras*, four; *dynamis*, power.] Having four long stamens and two short.

tetragenic (tět'rajënik) *a.* [Gk. *tetras*, four; *genos*, descent.] Controlled by four genes.

tetragonal (tět'rag'önäl) *a.* [Gk. *tetras*, four; *gonia*, angle.] Having four angles; quaternary.

tetragynous (tět'raj'inüs) *a.* [Gk. *tetras*, four; *gyne*, female.] With four carpels to a gynoeceum.

tetrahedral (tět'rähë'dräl) *a.* [Gk. *tetras*, four; *hedra*, base.] Having four triangular sides; *appl.* apical cell in plants having a unicellular growing point.

tetralophodont (tět'rälöf'ödönt) *a.* [Gk. *tetras*, four; *lophos*, crest; *odous*, tooth.] *Appl.* molar teeth with four ridges.

tetralophous (tět'rälöf'üs) *a.* [Gk. *tetras*, four; *lophos*, crest.] *Appl.* a spicule with four rays branched or crested.

tetramerous (tět'räm'erüs) *a.* [Gk. *tetras*, four; *meros*, part.] Composed of four parts; in multiples of four.

tetramite (tět'räm'it) *n.* [Gk. *tetras*, four; *mitos*, thread.] A tetrad formed by four parallel chromatids prior to diakinesis.

tetramorphic (tět'rämör'fik) *a.* [Gk. *tetras*, four; *morphe*, form.] Having four forms; of four different lengths, as basidia.

tetrandrous (tět'rän'drüs) *a.* [Gk. *tetras*, four; *aner*, man.] Having four stamens.

tetrapetalous (tět'räpët'älüs) *a.* [Gk. *tetras*, four; *petalon*, leaf.] Having four petals.

tetraploid (tět'räploid) *a.* [Gk. *tetraple*, fourfold.] With four times the normal haploid number of chromosomes. *n.* An organism with four chromosome sets.

tetrapneumonous (tět'ränü'mönüs, -pnü-) *a.* [Gk. *tetras*, four; *pneumon*, lung.] Having four lung-books, as certain spiders.

tetrapod (tět'räpöd) *n.* [Gk. *tetras*, four; *pous*, foot.] A four-footed animal; quadruped.

tetrapterous (tět'räp'tërüs) *a.* [Gk. *tetras*, four; *pteron*, wing.] Having four wings.

tetrapyrenous (tět'räp'irë'nüs) *a.* [Gk. *tetras*, four; *pyren*, fruit-stone.] Having four fruit-stones; being a four-stoned fruit.

tetraquetrous (tět'räkwët'rüs) *a.* [Gk. *tetras*, four; *L. quadratus*, squared.] Having four angles, as some stems.

tetrarch (tět'rärk) *a.* [Gk. *tetras*, four; *arche*, beginning.] With four protoxylem bundles.

tetraselenodont (tět'räsëlë'nödönt) *a.* [Gk. *tetras*, four; *selenë*, moon; *odous*, tooth.] Having four crescentic ridges on molar teeth.

tetrasepalous (tět'räsëp'älüs) *a.* [Gk. *tetras*, four; *F. sépale*, sepal.] Having four sepals.

tetraseriate,—tetrastichous, quadriserial, quadriseriate.

tetrasome (tět'räsöm) *n.* [Gk. *tetras*, four; *soma*, body.] Association of four homologous chromosomes in meiosis.

tetrasomic (tět'räsö'mik) *a.* [Gk. *tetras*, four; *soma*, body.] *Pert.* or having four homologous chromosomes. *n.* An organism with four chromosomes of one type.

tetraspermous (tět'räspër'müs) *a.* [Gk. *tetras*, four; *sperma*, seed.] Having four seeds.

tetrasporangium (tět'räspörän'jilüm) *n.* [Gk. *tetras*, four; *sporos*, seed; *anggeion*, vessel.] Sporangium producing tetraspores, as in red algae.

tetraspore (têt'râspôr) *n.* [Gk. *tetras*, four; *sporos*, seed.] One of a group of four non-motile spores produced by sporangium of certain algae; one of four basidial spores, as in Hymenomycetes.

tetrasporic,—four-spored.

tetrasporocystid (têt'râspô'rôsis'tid) *a.* [Gk. *tetras*, four; *sporos*, seed; *kystis*, bladder.] *Appl.* oocyst of Sporozoa when four sporocysts are present.

tetrasternum (têt'râstêr'nûm) *n.* [Gk. *tetras*, four; *sternon*, chest.] Sternite of fourth segment of prosoma or second segment of podosoma in Acarina.

tetrastichous (têtrâs'tikûs) *a.* [Gk. *tetras*, four; *stichos*, row.] Arranged in four rows.

tetrathecal (têt'râthê'kâl) *a.* [Gk. *tetras*, four; *theke*, case.] Having four loculi; quadrilocular.

tetraxon (têtrâk'sôn) *n.* [Gk. *tetras*, four; *axon*, axis.] A tetractine.

tetrazoic (têt'râzô'ik) *a.* [Gk. *tetras*, four; *zoon*, animal.] Having four sporozoites; *appl.* spores of Coccidia.

tetrazoid (têt'râzô'oid) *n.* [Gk. *tetras*, four; *zoon*, animal; *eidos*, form.] Zooid developed from each of four parts constricted from stolon process of embryonic ascidian.

textura (têkstû'râ) *n.* [L. *textura*, fabric.] Tissue.

thalamencephalon (thâl'âmênkêf'-âlôn, -sêf-) *n.* [Gk. *thalamos*, chamber; *engkephalos*, brain.] The part of the fore-brain comprising thalamus, corpora geniculata and epithalamus.

thalamomamillary (thâl'âmômâm'-ilâri) *a.* [Gk. *thalamos*, chamber; L. *mamilla*, nipple.] *Appl.* fasciculus or bundle of Vicq-d'Azyr, from corpus mamillare to thalamus.

thalamus (thâl'âmûs) *n.* [Gk. *thalamos*, chamber.] The receptacle or torus of a flower; ovoid ganglionic mass on either side of third ventricle of brain.

thalassin (thâlâs'in) *n.* [Gk. *thalassa*,

sea.] A toxin of sea - anemone tentacles.

thalassoid (thâlâs'oid) *a.* [Gk. *thalassa*, sea; *eidos*, form.] *Pert.* fresh-water organisms resembling, or originally, marine forms; pseudo-marine; halolimnic.

thalassophyte (thâlâs'ôfit) *n.* [Gk. *thalassa*, sea; *phyton*, plant.] Any marine alga.

thalassoplankton (thâlâs'ôplângk'-tôn) *n.* [Gk. *thalassa*, sea; *plangkton*, wandering.] Marine plankton.

thalliform,—thalloid.

thalline (thâl'in) *a.* [Gk. *thallos*, young shoot.] Consisting of a thallus; thalloid.

thalloidal,—thalloid.

thallogen,—thallophyte.

thalloid (thâl'oid) *n.* [Gk. *thallos*, young shoot; *eidos*, form.] Resembling a thallus; *appl.* exciple formed by thalloid hyphae.

thallome (thâl'ôm) *n.* [Gk. *thallos*, young shoot.] A thallus - like structure; a thallus.

thallophyte (thâl'ôfit) *n.* [Gk. *thallos*, young shoot; *phyton*, plant.] A plant not differentiated into stem and root, varying widely in form, as algae, fungi, and lichens. *Opp.* cormophyte.

thallose,—thalloid.

thallospore (thâl'ôspôr) *n.* [Gk. *thallos*, young shoot; *sporos*, seed.] Spore cell in vegetative part of a fungus.

thallus (thâl'ûs) *n.* [Gk. *thallos*, young shoot.] A combination of cells presenting no differentiation of leaf and stem, vegetative or assimilative part as in Thallophyta.

thalposis (thâl'pôsis, thâlpô'sis) *n.* [Gk. *thalpos*, warmth.] Sensation of warmth.

thamniscophagy (thâm'niskôf'âji) *n.* [Gk. *thamnos*, bush; *dim*; *phagein*, to eat.] Disintegration and absorption of arbusculae and sporangioles in mycorrhiza.

thanatoid (thân'âtoid) *a.* [Gk. *thantos*, death; *eidos*, form.] Deadly; *appl.* poisonous snakes; resembling death.

thanatology (thăn'ătöl'öjī) *n.* [Gk. *thanatos*, death; *logos*, discourse.] Theories concerning death.

thanatosis (thănătō'sīs) *n.* [Gk. *thanatos*, death.] Habit or act of feigning death; death of a part.

thebesian (thēbē'ziān) *a.* [*A. C. Thebesius*, German anatomist]. *Appl.* valve of coronary sinus.

theca (thē'kā) *n.* [Gk. *theke*, case.] A spore or pollen case; a sporangium; a capsule; a structure serving as protective covering for organ or organism, as of spinal cord, follicle, pupa, proboscis, tuben-animal.

thecacyst (thē'kāsist) *n.* [Gk. *theke*, case; *kystis*, bladder.] Sperm envelope or spermatophore formed by spermatheca.

thecal (thē'kāl) *a.* [Gk. *theke*, case.] Surrounded by a protective membrane or tissue; *pert.* a theca; *pert.* an ascus.

thecaphore (thē'kāfōr) *n.* [Gk. *theke*, case; *pherein*, to bear.] A structure on which a theca is borne.

thecaspore,—ascospore, *q.v.*

thecasporous (thēkāspō'rūs) *a.* [Gk. *theke*, case; *sporos*, a seed.] Having spores enclosed.

thecate (thē'kāt) *a.* [Gk. *theke*, case.] Covered or protected by theca; theciferous; thecigerous.

thecial (thē'siāl) *a.* [Gk. *theke*, case.] Within or *pert.* a thecium.

thecium (thē'siūm) *n.* [Gk. *theke*, case.] That part of a fungus or lichen containing the sporules.

thecodont (thē'kōdōnt) *a.* [Gk. *theke*, case; *odous*, tooth.] Having teeth in sockets.

theelin (thē'lin) *n.* [Gk. *thelys*, female.] Follicular hormone; folliculin, oestrin, oestrone; $C_{18}H_{22}O_2$.

theelol (thē'lōl) *n.* [Gk. *thelys*, female.] Hydrated theelin occurring in female urine; oestriol; $C_{18}H_{24}O_3$.

thelephorous (thēlē'fōrūs) *a.* [Gk. *thele*, teat; *pherein*, to bear.] Having nipples or nipple-like projections; with a closely nipples surface.

thelyblast (thē'liblāst) *n.* [Gk. *thelys*, female; *blastos*, bud.] A matured female germ cell.

thelygenic (thē'lijēn'ik) *a.* [Gk. *thelys*, female; *-genes*, producing.] Producing offspring preponderantly or entirely female; thelytocous.

thelytoky (thē'liōt'ōki) *n.* [Gk. *thelys*, female; *tokos*, offspring.] Parthenogenesis in case where females only are produced; thelytoky.

thelyplasm (thē'liplāzm) *n.* [Gk. *thelys*, female; *plasma*, mould.] Female plasm, *opp.* arrhenoplasm.

thenal (thē'nāl) *a.* [Gk. *thenar*, palm of hand.] *Pert.* or in region of palm of hand

thenar (thē'nār) *n.* [Gk. *thenar*, palm of hand.] The muscular mass forming ball of thumb.

thermium (thērmi'ūm) *n.* [Gk. *thermai*, hot springs.] Plant community in warm or hot springs.

thermocleistogamy (thē'mōklistōg'āni) *n.* [Gk. *therme*, heat; *kleistos*, closed; *gamos*, marriage.] Self-pollination of flowers when unopened owing to unfavourable temperature.

thermocline (thēr'mōklīn) *n.* [Gk. *therme*, heat; *klinein*, to swerve.] More or less abrupt change in water temperature in relation to depth; *appl.* layer between upper and deep layers, also to seasonal temperature change within the upper, mixed layer.

thermogenesis (thēr'mōjēn'ēsīs) *n.* [Gk. *therme*, heat; *genesis*, production.] Body-heat production by oxidation; heat production by bacteria.

thermolysis (thēr'mōl'īsīs) *n.* [Gk. *therme*, heat; *lysis*, loosing.] Loss of body heat; chemical dissociation owing to heat.

thermonasty (thēr'mōnās'tī) *n.* [Gk. *therme*, heat; *nastos*, close pressed.] Plant movement in response to variations of temperature.

thermoperiodicity (thēr'mōpēr'īōdis'itī) *n.* [Gk. *therme*, heat;

- periodos*, period.] Effects of temperature difference between light and dark periods upon plants.
- thermophase** (thēr'mōfāz) *n.* [Gk. *therme*, heat; *phainein*, to appear.] First developmental stage in some annual and perennial plants, and which can be partly or entirely completed during seed ripening if temperature and humidity are favourable; vernalisation phase.
- thermophil** (thēr'mōfil) *a.* [Gk. *therme*, heat; *philos*, loving.] Thriving at relatively high temperatures, above 40° C., *appl.* certain bacteria; thermophilic. *n.* Thermophile.
- thermophylactic** (thēr'mōfilāk'tik) *a.* [Gk. *therme*, heat; *phylaktikos*, fit for preserving.] Heat-resistant; tolerating heat, as certain bacteria.
- thermophyte** (thēr'mōfit) *n.* [Gk. *therme*, heat; *phyton*, plant.] A heat-tolerant plant; a therophyte, *q.v.*
- thermoscopic** (thēr'mōskōp'ik) *a.* [Gk. *therme*, heat; *skopein*, to view.] Adapted for recognising changes of temperature, as special sense-organs of certain cephalopods.
- thermotactic** (thēr'mōtāk'tik) *a.* [Gk. *therme*, heat; *taxis*, arrangement.] *Pert.* thermotaxis; *appl.* optimum, the range of temperature preferred by an organism.
- thermotaxis** (thēr'mōtāk'sis) *n.* [Gk. *therme*, heat; *taxis*, arrangement.] Locomotor reaction to temperature stimulus; regulation of body temperature.
- thermotropism** (thērmōt'rōpizm) *n.* [Gk. *therme*, heat; *trope*, turn.] Curvature in plants in response to temperature stimulus.
- therophyllous** (thēr'ōfil'ūs) *a.* [Gk. *theros*, summer; *phyllon*, leaf.] Having leaves in summer; with deciduous leaves.
- therophyte** (thēr'ōfit) *n.* [Gk. *theros*, summer; *phyton*, plant.] A plant which completes life-cycle within a single season, being dormant as seed during unfavourable period; an annual.
- thesocytes** (thē'sōsits) *n. plu.* [Gk. *thesis*, deposit; *kytos*, hollow.] Sponge-cells storing reserve material.
- theta** (θ) **factor**,—the thyrotropic hormone.
- thiamine**,—aneurin or vitamin B₁, antineuritic or antiberiberi vitamin, found in rice polishings, cereals, and yeast; C₁₂H₁₈N₄OSCl₂.
- thigmocyte** (thīg'mōsīt) *n.* [Gk. *thigema*, touch; *kytos*, hollow.] A corpuscle which undergoes cytolysis on contact with foreign substance.
- thigmomorphosis** (thīg'mōmōr'fōsis, -mōrfō'sis) *n.* [Gk. *thigema*, touch; *morphosis*, form.] Structural change due to contact; swelling at ends of contacting zygomorphs.
- thigmotaxis** (thīg'mōtāk'sis) *n.* [Gk. *thigema*, touch; *taxis*, arrangement.] The tendency of minute organisms to attach themselves to objects on contact; locomotor reaction to touch stimulus.
- thigmotropism** (thīg'mōt'rōpizm) *n.* [Gk. *thigema*, touch; *trope*, turn.] The tendency to respond to mechanical contact by clinging and curving, as in tendrils; response to stimulus of contact.
- thinophyte** (thī'nōfit) *n.* [Gk. *this*, sand-heap; *phyton*, plant.] Dune plant.
- thiogenic** (thī'jēn'ik) *a.* [Gk. *theion*, sulphur; *gennaen*, to produce.] Sulphur-producing; *appl.* bacteria utilising sulphur compounds.
- thiophil** (thī'ōfil) *n.* [Gk. *theion*, sulphur; *philein*, to love.] An organism thriving in the presence of sulphur compounds as certain bacteria. *a.* Thiophilic.
- thoracic** (thōrās'ik) *a.* [Gk. *thorax*, chest.] *Pert.*, or in region of, thorax.
- thoracic duct**,—vessel conveying lymph and chyle from abdomen to left subclavian vein; *cf.* cisterna chyli.

thoracic index,—one hundred times depth of thorax at nipple level divided by breadth.

thoracolumbar (thōrā'kōlūm'bār) *a.* [Gk. *thorax*, chest; *L. lumbar*, loin.] *Pert.* thoracic and lumbar part of spine; *appl.* nerves, the sympathetic system.

thoracopod (thōrā'kōpōd) *n.* [Gk. *thorax*, chest; *pous*, foot.] Any thoracic leg of Malacostraca.

thorax (thō'rāks) *n.* [Gk. *thorax*, chest.] In higher vertebrates, that part of body between neck and abdomen containing heart, lungs, etc.; body region behind head of other animals.

thread-cells,—stinging cells or cnidoblasts in coelenterates; in skin of myxinoids, cells whose long threads form a network in which mucous secretion of ordinary gland cells is entangled.

thread-press,—the muscular portion of a spinning tube.

three-nerved leaf,—a leaf with three distinct primary veins.

thremmatology (thrēm'ātōl'ōjī) *n.* [Gk. *thremma*, nursling; *logos*, discourse.] The science of breeding animals and plants under domestic conditions.

threshold,—limen, *q.v.*

thrombin (thrōm'bīn) *n.* [Gk. *thrombos*, clot.] Fibrin-ferment which converts fibrinogen into fibrin.

thrombocytes (thrōm'bōsīts) *n. plu.* [Gk. *thrombos*, clot; *kytos*, hollow.] Blood-platelets; in non-mammalian vertebrates, nucleated spindle-shaped cells concerned with clotting of blood.

thrombogen (thrōm'bōjēn) *n.* [Gk. *thrombos*, clot; *-genes*, producing.] Prothrombin.

thrombokinasē (thrōm'bōkīnās') *n.* [Gk. *thrombos*, clot; *kinein*, to move.] A factor which, with calcium, activates prothrombin to form thrombin, found in tissues and blood-platelets; thromboplastin.

thromboplastid (thrōm'bōplās'tīd) *n.* [Gk. *thrombos*, clot; *plastos*, moulded.] A blood platelet.

thromboplastin (thrōm'bōplās'tīn) *n.* [Gk. *thrombos*, clot; *plastos*, moulded.] Thrombokinasē or thromboplastic factor; thrombozyme, cytozyme.

thrombosis (thrōmbō'sīs) *n.* [Gk. *thrombos*, clot.] Clotting, as of blood.

thrombozyme (thrōm'bōzīm) *n.* [Gk. *thrombos*, clot; *zyme*, leaven.] Thrombokinasē.

thrum-eyed,—short-styled, with long stamens extending to mouth of tubular corolla. *Opp.* pin-eyed.

thryptophyte (thrīp'tōfit) *n.* [Gk. *thryptein*, to enfeeble; *phyton*, plant.] Any fungus that modifies host tissue without any direct lethal effect.

thyloses (thī'lōsēz) *n. plu.* [Gk. *thylakos*, pouch.] Masses of parenchyma formed inside wood vessels through pressure in secondary wood; tylosis, *q.v.*

thymic (thī'mīk) *a.* [Gk. *thymos*, thymus.] *Pert.* the thymus; *appl.* corpuscles: the concentric corpuscles of Hassall.

thymocyte (thī'mōsit) *n.* [Gk. *thymos*, thymus; *kytos*, hollow.] A small lymphocyte in cortex of thymus.

thymovidin (thīmō'vīdīn) *n.* [Gk. *thymos*, thymus; *L. ovum*, egg.] A thymus hormone of birds, which influences egg albumin and shell formation.

thymus (thī'mūs) *n.* [Gk. *thymos*, thymus.] An endocrine gland in lower anterior part of neck, or surrounding heart, in man regressing after maximum development at puberty.

thyreo,—also see thyro-.

thyreoid (thī'rēoid) *a.* [Gk. *thyreos*, oblong shield; *eidōs*, form.] Shield-shaped; peltate; thyroid. *n.* An endocrine gland, the thyroid, *q.v.*

thyreothecium (thī'rēōthēs'īūm) *n.* [Gk. *thyreos*, oblong shield; *theke*, case.] A shield-like fruit-body of certain ectoparasitic fungi.

thyridium (thīrīd'īūm) *n.* [Gk. *thyra*, door; *idion*, *dim.*] Hairless whitish area on certain insect wings.

thyro-arytaenoid (thí'röäritē'noid) *n.* [Gk. *thyra*, door; *arytaina*, pitcher; *eidos*, form.] A muscle of larynx.

thyroepiglottic (thí'röëp'iglôt'ík) *a.* [Gk. *thyra*, door; *epi*, upon; *glotta*, tongue.] *Appl.* ligament connecting epiglottis stem and angle of thyroid cartilage.

thyroglossal (thí'röglös'äl) *a.* [Gk. *thyra*, door; *glossa*, tongue.] *Pert.* thyroid and tongue; *appl.* an embryonic duct, the ductus thyroglossus.

thyrohyals (thí'röhi'älz) *n. plu.* [Gk. *thyra*, door; *hyoeides*, Y-shaped.] Greater cornua of hyoid bone.

thyrohyoid (thí'röhi'oid) *a.* [Gk. *thyra*, door; *hyoeides*, Y-shaped.] *Appl.* muscle extending from thyroid cartilage to hyoid cornu.

thyroid (thí'roid) *a.* [Gk. *thyra*, door; *eidos*, form.] Shield-shaped; *appl.* a ductless highly vascular gland at front and sides of neck; also to arteries, cartilage, and veins. *n.* The thyroid gland.

thyrotrophic (thí'rötröf'ík) *a.* [Gk. *thyra*, door; *trophe*, nourishment.] *Appl.* a prepituitary hormone which stimulates growth and function of thyroid gland; thyrotropic.

thyroxine (thí'röksin) *n.* [Gk. *thyra*, door; *oxys*, sharp.] A compound isolated from thyroid gland, with properties resembling those of iodothyroglobulin; $C_{15}H_{11}O_4NI_4$.

thyrse,—thyrus.

thyrsoïd (thër'soid) *a.* [Gk. *thyrsos*, wand; *eidos*, form.] Resembling a thyrus in shape.

thyrsus (thër'süs) *n.* [Gk. *thyrsos*, wand.] A mixed inflorescence with main axis racemose, later axes cymose, with cluster almost double-cone shaped; hypha-bearing lateral chlamydo-spores; penis.

thysanuriform (this'änü'rîförm) *a.* [Gk. *thysanos*, fringe; *oura*, tail; *L. forma*, form.] Campodeiform; *appl.* a larva resembling Thysanura.

tibia (tib'ia) *n.* [L. *tibia*, shin.] Shin-bone, inner and larger of leg-bones between knee and ankle; fourth joint of insect and arachnid leg.

tibial (tib'ial) *a.* [L. *tibia*, shin.] *Pert.* or in region of tibia.

tibiale (tib'ial'le) *n.* [L. *tibia*, shin.] Embryonic structure partly represented by astragalus; a sesamoid bone in tendon of posterior tibial muscle.

tibiofibula (tib'iofib'ülä) *n.* [L. *tibia*, shin; *fibula*, buckle.] Bone formed of fused tibia and fibula.

tibiofibular (tib'iofib'ülär) *a.* [L. *tibia*, shin; *fibula*, buckle.] *Pert.* tibia and fibula; *appl.* articulation, syndesmosis; *pert.* tibiofibula.

tibiotarsal (tib'iotär'säl) *a.* [L. *tibia*, shin; Gk. *tarsos*, sole of foot.] *Pert.* tibia and tarsus; *pert.* or in region of tibiotarsus.

tibiotarsus (tib'iotär'süs) *n.* [L. *tibia*, shin; Gk. *tarsos*, sole of foot.] Tibial bone to which proximal tarsals are fused, in birds.

tidal (ti'däl) *a.* [A.S. *tid*, time.] *Pert.* tides; ebbing and flowing; *appl.* air, volume of air normally inhaled and exhaled at each breath; *appl.* wave, main flow of blood during systole.

Tiedemann's vesicles [*F. Tiedemann*, German anatomist]. Small rounded glandular chambered bodies at neck of Polian vesicles; racemose vesicles of Asteroidea.

tige (tēzh, tīj) *n.* [*F. tige*, stem.] Paturon, *q.v.*; stem.

tigellum (tijel'üm) *n.* [*F. tigelle*, *dim.* of *tige*, stem.] The central embryonic axis, consisting of radicle and plumule.

tigroid (ti'groid.) *a.* [Gk. *tigroëides*, spotted.] *Appl.* granules or bodies, chromophil substance or Nissl granules of the neurocyton.

tigrolysis (tigröl'isis) *n.* [Gk. *tigroëides*, spotted; *lysis*, loosing.] Chromatolysis of tigroid granules.

timbal (tīm'bäl) *n.* [*F. timbale*, kettle-drum.] Sound-producing organ in cicadas.

Timofeev's corpuscles [*D. A. Timofeev*, Russian anatomist]. Specialised sensory nerve endings in submucosa of urethra and in prostatic capsule.

tinctorial (tīngktō'riāl) *a.* [L. *tinctorius*, *pert.* dyeing.] Producing dye-stuff; *appl.* certain lichens.

tip cell,—the uninucleate ultimate cell of a hyphal crosier, distal to the dome cell and directed towards the basal cell.

tiphophyte (tīf'ofit) *n.* [Gk. *tiphos*, pool; *phyton*, plant.] Pond plant.

tissue (tis'ū, tīsh'ū) *n.* [F. *tissu*, woven.] The fundamental structure of which animal and plant organs are composed; an organisation of like cells.

tmema (tmē'mā) *n.* [Gk. *tmētos*, cut.] An intercalary cell which separates aecidiospores of certain rust fungi.

tocopherol (tōkōf'ērōl) *n.* [Gk. *tokos*, birth; *pherein*, to carry.] *a* tocopherol, vitamin E, present in wheat germ, etc.; anti-sterility vitamin; $C_{29}H_{50}O_2$.

tokocytes (tōk'ōsīts) *n. plu.* [Gk. *tokos*, offspring; *kytos*, hollow.] Reproductive cells of sponges.

tokostome (tōk'ōstōm) *n.* [Gk. *tokos*, birth; *stoma*, mouth.] Female genital aperture, as in mites, etc.

tolypophagy (tōl'ipōf'aji) *n.* [Gk. *tolype*, clew; *phagein*, to eat.] Disintegration and absorption of hyphal coils in mycorrhizae.

tomentose (tōmēn'tōs) *a.* [L. *tomentum*, stuffing.] Covered closely with matted hairs or fibrils.

tomentum (tōmēn'tūm) *n.* [L. *tomentum*, stuffing.] The closely matted hair on leaves or stems.

Tomes' fibres [Sir J. *Tomes*, English dentist]. Dentinal fibres, processes of odontoblasts in dentinal tubules.

Tomes' granular layer,—a layer of interglobular spaces in dentine.

tomite (tōmīt) *n.* [Gk. *tome*, cutting; *mitos*, thread.] Free-swimming non-feeding stage following protomite stage in life cycle of Holotricha.

tomium (tō'mīūm) *n.* [Gk. *tomos*, cutting.] The sharp edge of a bird's beak.

tomont (tōmōnt') *n.* [Gk. *tome*,

cutting; *onta*, beings.] Stage in life cycle of Holotricha when body divides, usually in a cyst.

tongue (tūng) *n.* [A.S. *tunge*, tongue.] An organ on floor of mouth, usually movable and protrusible; any tongue-like structure, as radula, ligula; hypopharynx, in some insects; lingua.

tonicity (tōnis'itī) *n.* [Gk. *tonos*, tension.] Normal tone or tension; tonus.

tonofibrillae (tōn'ōfibril'ē) *n. plu.* [Gk. *tonos*, tension; L. *fibrilla*, small fibre.] Epitheliofibrillae, *q.v.*, regarded as skeletal or supporting structures rather than as myofibrillae; supporting fibrils, as of cilia.

tonoplast (tōn'ōplāst) *n.* [Gk. *tonos*, tension; *plastos*, modelled.] A vacuolar membrane; a plastid with distinct vacuole walls; a special form of vacuole-producing plastid.

tonotaxis (tōnōtāk'sis) *n.* [Gk. *tonos*, tension; *taxis*, arrangement.] Response to change in density of surrounding medium.

tonsil (tōn'sil) *n.* [L. *tonsilla*, tonsil.] One of aggregations of lymphoid tissue in pharynx or near tongue base.

tonsilla (tōnsil'ā) *n.* [L. *tonsilla*, tonsil.] A tonsil; posterior lobule of cerebellar hemisphere, on either side of uvula of inferior vermis.

tonsillar ring,—partial ring of lymphoid tissue formed by the palatine, pharyngeal and lingual tonsils; Waldeyer's tonsillar ring.

tonus (tōn'ūs) *n.* [Gk. *tonos*, tension.] Tonicity, or condition of being slightly stretched, as of muscles.

topaesthesia (tōp'ēsthē'sia) *n.* [Gk. *topos*, place; *aisthesia*, sensation.] Appreciation of locus of a tactile sensation.

topochemical (tōp'ōkēm'ikāl) *a.* [Gk. *topos*, place; *chemeia*, transmutation.] *Appl.* sense, the perception of odours in relation to track or place, as in ants.

topodeme (töp'ödēm) *n.* [Gk. *topos*, place; *demos*, people.] Deme occupying a particular geographical area.

toponym (töp'önīm) *n.* [Gk. *topos*, place; *onyma*, name.] The name of a place or of a region; a name designating the place of origin of a plant or animal.

topotaxis (töp'ötäk'sis) *n.* [Gk. *topos*, place; *taxis*, arrangement.] Movement induced by spatial differences in stimulation intensity, and orientation in relation to sources of stimuli, as telotaxis, tropotaxis, menotaxis, mnemotaxis, *q.v.*; tropism.

topotype (töp'ötīp) *n.* [Gk. *topos*, place; *typos*, pattern.] A specimen from locality of original type.

toral (tō'rāl) *a.* [L. *torus*, a swelling.] Of or *pert.* a torus.

torcular (tôr'külär) *n.* [L. *torcular*, wine-press.] Occipital junction of venous sinuses of dura mater; confluens sinuum, torcular Herophili.

tori,—*plu.* of torus.

torma (tôr'mä) *n.* [Gk. *tormos*, socket.] A thickening at junction of labrum and clypeus.

tormogen (tôr'möjēn) *n.* [Gk. *tormos*, socket; *-genes*, producing.] A cell secreting the socket of a bristle, in insects.

tornaria (törnär'riä) *n.* [L. *tornare*, to turn.] The free larval stage in development of Balanoglossida.

tornate (tôr'nāt) *a.* [L. *tornare*, to turn.] With blunt extremities, as a spicule.

torose (tôr'rös) *a.* [L. *torus*, swelling.] Having fleshy swellings; knobbed.

torques (tôr'kwēz) *n.* [L. *torques*, necklace.] A necklace-like arrangement of fur, feathers, or the like.

torsion (tôr'shūn) *n.* [L. *torquere*, to twist.] Spiral bending; the twisting round of a gastropod body as it develops.

torticone (tôr'tikōn) *n.* [L. *torquere*, to twist; *conus*, cone.] A turreted, spirally-twisted shell.

torula condition,—yeast-like isolated cells resulting from growth of

blue mould conidia in saccharine solution.

torulaceous,—torulose, moniloid.

toruloid (tôr'ülöid) *a.* [L. *torulus*, small swelling; Gk. *eidos*, form.] *Appl.* a structure, plasmatoönkosis, storage organ of zoosporangium, as in Peronosporales.

torulose (tôr'ülös) *a.* [L. *torulus*, small swelling.] With small swellings; beaded; moniliform.

torulus (tôr'ülüs) *n.* [L. *torulus*, small swelling.] The insect antenna insertion socket; antennifer, *q.v.*

torus (tôr'rüs) *n.* [L. *torus*, swelling.] Axis bearing floral leaves; receptacle or thalamus; thickened centre of a bordered pit-membrane; firm prominence, or marginal fold or ridge; ridge bearing uncini in Polychaeta; pedicel in Diptera.

totipalmate (tō'tīpāl'māt) *a.* [L. *totus*, all; *palma*, palm of hand.] Having feet completely webbed; steganopodous.

totipotent (tō'tīp'ötēnt) *a.* [L. *totus*, all; *potens*, powerful.] *Appl.* blastomeres which can develop into complete embryos when separated from aggregate of blastomeres; *appl.* meristematic cells capable of specialisation in response to hormones from growth centres; totipotent.

toxaspire (tök'säspīr) *n.* [Gk. *toxon*, bow; L. *spira*, coil.] A spiral spicule of rather more than one revolution.

toxic (tök'sīk) *a.* [Gk. *toxikon*, poison.] *Pert.*, caused by, or of the nature of a poison; poisonous.

toxicant,—any poison or toxic agent.

toxicity (töksis'itl) *n.* [Gk. *toxikon*, poison.] The nature of a poison; the virulence of a poison or of a poisonous agency.

toxicology (tök'sīköl'öj) *n.* [Gk. *toxikon*, poison; *logos*, discourse.] The science treating of poisons and their effects.

toxiciferous (töksīf'erüs) *a.* [Gk. *toxikon*, poison; L. *ferre*, to carry.] Holding or carrying poison; toxicophorous.

toxigenic (töksijén'ík) *a.* [Gk. *toxicon*, poison; *-genes*, producing.] Producing a poison; toxicogenic.

toxiglossate (tòk'siglòs'ât) *a.* [Gk. *toxikon*, poi-on; *glossa*, tongue.] Having hollow lateral radula teeth conveying poisonous secretion of salivary glands, as certain carnivorous marine gastropods.

toxin (tòk'sín) *n.* [Gk. *toxikon*, poison.] Any poison derived from a plant or animal: phytotoxin or zootoxin.

toxoid (tòk'soid) *n.* [Gk. *toxikon*, poison; *eidós*, form.] A toxin deprived of its toxic but not of its antigenic capacity; anatoxin.

toxon (tòk'són) *n.* [Gk. *toxon*, bow.] A toxa or bow-shaped spicule.

toxophores (tòk'sòfòrz) *n. plu.* [Gk. *toxikon*, poison; *pherein*, to carry.] The poisoning qualities of toxin molecules; *cf.* haptophores.

trabant (trábánt') *n.* [Ger. *Trabant*, satellite.] Short chromosome segment constricted from the rest; satellite, *q.v.*

trabeculae (trábèk'ùlê) *n. plu.* [L. *trabecula*, little beam.] Primordial lamellae of agarics; plates of sterile cells extending across sporangium of pteridophytes; a row of cells bridging a cavity; two curved bars of cartilage embracing hypophysis cerebri of embryo; small fibrous bands forming imperfect septa or framework of organs.

trabecular (trábèk'ùlâr) *a.* [L. *trabecula*, little beam.] *Pert.* or of nature of a trabecula; having a cross-barred framework; trabeculate.

trabs cerebri,—corpus callosum.

trace-elements,—elements occurring in minute quantities as natural constituents of living organisms or tissues, as Ag, Cd, Co, Cu, Fe, Li, Mn, Ni, Pb, Sr, V.

tracer-elements,—isotopes used for tracing chemical elements and compounds in living tissue; tracers.

trachea (trákê'â, trâ'kêä) *n.* [L.L. *trachia*, windpipe.] The windpipe; a respiratory tubule of insects and other arthropods; spiral or annular

vascular tissue of plants; wood-vessel.

tracheal (trákê'äl, trâ'kêäl) *a.* [L.L. *trachia*, windpipe.] *Pert.*, resembling, or having tracheae; tracheate, *appl.* tissue, as of xylem; *appl.* ectodermal cavities opening into pneumatophore of certain Siphonophora.

tracheal gills,—small wing-like respiratory outgrowths from the abdomen of aquatic larvae of insects.

tracheary,—tracheal, tracheate.

tracheate (trâ'kêät) *a.* [L.L. *trachia*, windpipe.] Having tracheae; trachean.

tracheid (trâk'êid) *n.* [L.L. *trachia*, windpipe.] One of the cells with spiral thickening or bordered pits, conducting water and solutes, and forming woody tissue.

tracheidal cells,—pericycle cells resembling tracheids.

trachein (trâk'êin) *n.* [L.L. *trachia*, windpipe.] Colloid substance of tracheal air sacs, contracting or expanding according to degree of moisture, in certain buoyant insect larvae.

trachelate (trâk'êlât) *a.* [Gk. *trachelos*, neck.] Narrowed, as in neck-formation.

trachelomastoid (trâk'êlômäs'toid) *a.* [Gk. *trachelos*, neck; *mastos*, breast; *eidós*, form.] *Pert.* neck region and mastoid process; *appl.* muscle, longissimus capitis.

trachenchyma (trâkêng'kimä) *n.* [L. *trachia*, windpipe; Gk. *engchyma*, infusion.] Tracheal vascular tissue.

tracheobronchial (trâk'êöbrông'kiäl) *a.* [L. *trachia*, windpipe; Gk. *brongchos*, bronchial tube.] *Appl.* lymph-glands; *appl.* a syrinx formed of lower end of trachea and upper bronchi.

tracheole (trâk'êöl) *n.* [L. *trachia*, windpipe.] An ultimate branch of tracheal system.

tracheophyte (trâk'êöfit) *n.* [L.L. *trachia*, windpipe.] Any vascular plant, a pteridophyte or a spermatophyte.

trachychromatic (trāk'īkrōināt'ik) *n.* [Gk. *trachys*, rugged; *chroma*, colour.] Staining or stained deeply. *Opp.* amblychromatic.

trachyglossate (trāk'īglōs'āt) *a.* [Gk. *trachys*, rough; *glossa*, tongue.] With rasping or toothed tongue.

tract (trākt) *n.* [L. *trahere*, to draw.] A region or area or system considered as a whole, as alimentary tract; a band, bundle, or system of nerve fibres.

tractellum (trāktēl'ūm) *n.* [L. *trahere*, to draw.] A flagellum of forward end of Mastigophora, or of zoospores, with circumductory motion.

tragus (trā'gūs) *n.* [Gk. *tragos*, goat.] A small pointed eminence in front of concha of ear; its hair.

trama (trā'mā, trāmā) *n.* [L. *trama*, woof.] A central core of interwoven hyphae of a fungal gill or conidiophore.

tramal (trām'āl) *a.* [L. *trama*, woof.] In, from, or *pert.* trama.

transad (trān'sād) *adv.* [L. *trans*, across; *ad*, to.] *Appl.* organisms of the same or closely related species which have become separated by an environmental barrier, as European and American reindeer.

transamination (trān'sāminā'shūn) *n.* [L. *trans*, across; Gk. *ammonia-kon*, resinous gum.] Transfer of amino (NH₂) groups to another molecule.

transapical (trān'sāp'ikāl) *a.* [L. *trans*, across; *apex*, summit.] *Appl.* transverse axis and plane of diatom valve.

transect (trān'sēkt) *n.* [L. *trans*, across; *secare*, to cut.] A line, strip, or profile, as of vegetation, chosen for study and charting.

transection (trānsēk'shūn) *n.* [L. *trans*, across; *sectio*, a cut.] Cross section; section across a longitudinal axis.

transeptate (trānsēp'tāt) *a.* [L. *trans*, across; *septum*, partition.] Having transverse partitions or septa.

transformation (trāns'fōrmā'shūn) *n.*

[L. *transformare*, to change in shape.] Change of form, as in metamorphosis; metabolism.

transfusion tissue,—tissue of gymnosperm leaves, consisting of parenchymatous and tracheidal cells.

transgenation,—point mutation or genovariation.

transilient (trānsil'ient) *a.* [L. *transilire*, to leap over.] *Appl.* nerve fibres connecting brain convolutions not adjacent. *n.* A mutation.

transitional (trānsish'ōnāl) *a.* [L. *transire*, to go across.] *Appl.* epithelium occurring in ureters and urinary bladder, renewing itself by mitotic division of third and innermost layer of cells.

translocation (trāns'lōkā'shūn) *n.* [L. *trans*, across; *locus*, place.] Removal to a different place or habitat; diffusion, as of food material; change in position of a chromosome segment to another part of the same chromosome or of a different chromosome.

translocation quotient,—ratio of chemical content of shoot to that of root, a measure of mobility or relative translocation, *e.g.* of manganese.

transmedian (trānsēmē'diān) *a.* [L. *trans*, across; *medius*, middle.] *Pert.* or crossing the middle plane; *appl.* muscles.

transmutation theory,—theory that one species can evolve from another.

transpalatine (trānspāl'ātfn) *n.* [L. *trans*, across; *palatus*, the palate.] A cranial bone of crocodiles, connecting pterygoid with jugal and maxilla.

transpinalis (trānspinā'lis) *n.* [L. *trans*, across; *spina*, spine.] A muscle connecting transverse processes of vertebrae.

transpiration (trānspīrā'shūn) *n.* [L. *trans*, across; *spirare*, to breathe.] Exhalation of vapour through pores or stomata.

transplant (trānspłānt', trānzplānt') *v.* [L. *trans*, across; *plantare*, to plant.] To transfer tissue from

- one part to another part of the body of the same or that of another individual. (trāns'plānt, trānz'-plānt) *n.* Tissue transferred to another part; graft.
- transpyloric plane**, — upper of imaginary horizontal planes dividing abdomen into artificial regions.
- transudate** (trānsū'dāt) *n.* [L. *trans*, beyond; *sudare*, to sweat.] Any substance which has oozed through a membrane or pores.
- transversal** (trānsvēr'sāl) *a.* [L. *transversus*, across.] Lying across or between, as a transversal wall.
- transverse** (trānsvērs') *a.* [L. *transversus*, across.] Lying across or between, as artery, colon, ligament, process; heterotropous.
- transversum** (trānsvēr'sūm) *n.* [L. *transversus*, across.] In most reptiles, a cranial bone extending from pterygoid to maxilla.
- transversus** (trānsvēr'sūs) *n.* [L. *transversus*, across.] A transverse muscle, as of abdomen, thorax, pinna, tongue, foot, perinaeum.
- trapeziform** (trāpē'zifōrm) *a.* [Gk. *trapezion*, small table; L. *forma*, shape.] Trapezium-shaped.
- trapezium** (trāpē'ziūm) *n.* [Gk. *trapezion*, small table.] The first carpal bone, at base of first metacarpal; greater multangular bone; portion of pons Varolii.
- trapezius** (trāpē'ziūs) *n.* [Gk. *trapezion*, small table.] A broad, flat, triangular muscle of neck and shoulders.
- trapezoid** (trāpē'zoid, trāpē'zoid) *a.* [Gk. *trapezion*, small table; *eidōs*, form.] Trapezium-shaped; *appl.* ligament, nucleus, ridge. *n.* Lesser multangular bone.
- traumatic** (trōmāt'ik) *a.* [Gk. *trauma*, wound.] *Pert.*, or caused by, a wound or other injury.
- traumatism** (trō'mātīn) *n.* [Gk. *trauma*, wound.] Substance occurring in injured plant cells, which is capable of causing uninjured cells to divide; wound hormone; $C_{11}H_{17}O_4N$.
- triatomastomy** (trō'mātōnās'tī) *n.* [Gk. *trauma*, wound; *nastos*, close pressed.] Curvature response to stimulus of wounding.
- traumatotropic** (trō'mātōtrōp'ik) *a.* [Gk. *trauma*, wound; *trōpe*, turning.] *Appl.* curvature of plant organ in response to a wounding influence; traumatropic.
- traumatropism** (trōmāt'rōpīzm) *n.* [Gk. *trauma*, wound; *trōpe*, turn.] Curving of plant parts in response to wounds.
- traumotaxis** (trō'mōtāk'sis) *n.* [Gk. *trauma*, wound; *taxis*, arrangement.] Reaction after wounding, as in nuclei and protoplasts.
- trefoil** (trē'foil) *n.* [L. *trifolius*, three-leaved.] Flower or leaf with three lobes.
- tremelloid** (trēm'ēloid) *a.* [L. *tremere*, to tremble.] Gelatinous in substance or appearance.
- trephocyte** (trēf'ōsit) *n.* [Gk. *trephein*, to nourish; *kytos*, hollow.] A cell nourishing adjacent cells; nurse cell; sustentacular cell.
- trephones** (trēfōnz') *n. plu.* [Gk. *trephein*, to nourish.] Nutritive substances formed on breaking down of cells and which stimulate cell-division.
- triactinal** (triāk'tināl) *a.* [Gk. *tria*, three; *aktis*, ray.] Three-rayed.
- triadelphous** (trī'ādēl'fūs) *a.* [Gk. *tria*, three; *adelphos*, brother.] Having stamens united by their filaments into three bundles.
- triaene** (trī'ēn) *n.* [Gk. *triaina*, trident.] A somewhat trident-shaped spicule.
- triandrous** (triān'drūs) *a.* [Gk. *tria*, three; *aner*, man.] Having three stamens.
- triangle** (triāng'gl) *n.* [L. *triangularis*, three-sided.] A three-sided structure or area.
- triangularis** (trī'āngulā'rīs) *n.* [L. *triangularis*, three-cornered.] Muscle from mandible to lower lip, which pulls down corner of mouth, depressor anguli oris; muscle and tendinous fibres between dorsal surface of sternum and costal cartilages, transversus thoracis, which assists expiration.

trianthous (triän'thüs) *a.* [Gk. *tria*, three; *anthos*, flower.] Having three flowers.

triarch (tri'ärk) *n.* [Gk. *tria*, three; *arche*, beginning.] Having three xylem bundles uniting to form the woody tissue of root.

triarticulate (tri'ärtik'ülät) *a.* [L. *tres*, three; *articulus*, joint.] Three-jointed.

Triassic (triäs'ik) *a.* [Gk. *tria*, three.] *Appl.* the early period of the Mesozoic era.

triaster (triäs'tër) *n.* [Gk. *tria*, three; *aster*, star.] Three chromatin masses resulting from tripolar mitosis, as in cancer cells.

triaxon (triäk'sön) *n.* [Gk. *tria*, three; *axis*, axle.] A sponge spicule with three axes.

tribe (trib) *n.* [L. *tribus*, tribe.] In classification, a subdivision of a family and differing in minor characters from other tribes.

triboloid (trib'oloid) *a.* [Gk. *tribolos*, burr; *eidos*, form.] Like a burr; prickly; echinulate.

triboluminescence (trib'öloominës'-ëns) *n.* [Gk. *tribein*, to rub; L. *luminescere*, to grow light.] Luminescence produced by friction.

tribracteate (tribräk'tëät) *a.* [L. *tres*, three; *bractea*, thin plate of metal.] With three bracts.

trica (tri'kä) *n.* [F. *tricoter*, to knit.] A lichen apothecium with ridged spherical surface.

tricarpeal (trikär'päläri) *a.* [Gk. *tria*, three; *karpós*, fruit.] With three carpels.

tricentric (trisën'trik) *a.* [Gk. *tria*, three; *kentron*, centre.] Having three centromeres, *appl.* chromosomes.

triceps (tri'sëps) *n.* [L. *tres*, three; *caput*, head.] *Appl.* a muscle with three heads or insertions.

trichidium (trikid'iüm) *n.* [Gk. *thrix*, hair; *idion*, dim.] A sterigma.

trichilium (trikl'i'ium) *n.* [Gk. *thrix*, hair; *ile*, crowd.] A pad of matted hairs at base of certain leaf petioles.

trichites (trik'its) *n. plu.* [Gk. *thrix*, hair.] Fine rod-like structures

found in oral basket of certain infusoria; silicious spicules in certain sponges; hypothetical amylose crystals constituting a starch granule.

trichoblast (trik'öbläst) *n.* [Gk. *thrix*, hair; *blastos*, bud.] A cell, of plant epidermis, which develops into a root-hair.

trichobothrium (trik'öböth'rüüm) *n.* [Gk. *thrix*, hair; *bothros*, pit.] A conical protuberance with sense-hair, on each side of anal segment in certain myriopods; a vibratory sense-hair or setula in spiders.

trichocarpous (trik'ökär'püs) *a.* [Gk. *thrix*, hair; *karpós*, fruit.] With hairy fruits.

trichocutis (trik'ökü'tis) *n.* [Gk. *thrix*, hair; L. *cutis*, skin.] Cutis of a stipe, formed by coherent hairs or filaments of trichoderm.

trichocyst (trik'ösist) *n.* [Gk. *thrix*, hair; *kystis*, bladder.] An oval or spindle-shaped protrusible body found in ectoplasm of infusoria.

trichoderm (trik'ödërm) *n.* [Gk. *thrix*, hair; *derma*, skin.] A filamentous outer layer of pileus and stipe of agarics. *Cf.* epitrichoderm.

trichodragmata (trik'ödräg'mätä) *n. plu.* [Gk. *thrix*, hair; *dragma*, sheaf.] Straight, fine hair-like spicules in bundles.

trichogen (trik'öjën) *n.* [Gk. *thrix*, hair; *-genes*, producing.] A hair- or bristle-producing cell, in insects.

trichogyne (trik'öjinë) *n.* [Gk. *thrix*, hair; *gyne*, woman.] An elongated hair-like receptive cell at end of carpogonium of Thallophyta.

trichohyalin (trik'öhī'älin) *n.* [Gk. *thrix*, hair; *hyalos*, glass.] A substance resembling eleidin, in granules in Huxley's layer of hair-follicle.

trichoid (trik'oid) *a.* [Gk. *thrix*, hair; *eidos*, form.] Hair-like; *appl.* a type of tactile sensilla in insects.

trichome (trik'öm) *n.* [Gk. *trichoma*, growth of hair.] An outgrowth of plant epidermis, either hairs or scales; a hair tuft; a filamentous thallus; trichoma.

trichophore (trik'ōfōr) *n.* [Gk. *thrix*, hair; *pherein*, to bear.] A group of cells bearing trichogyne; chaetigerous sac of annelids.

trichosiderin (trik'ōsidērīn) *n.* [Gk. *thrix*, hair; *sideros*, iron.] Iron-containing red pigment isolated from human red hair.

trichosis (trikō'sis) *n.* [Gk. *thrix*, hair.] Distribution of hair; abnormal hair growth.

trichospore,—zoospore, *q.v.*

trichothallic (trik'ōthāl'ik) *a.* [Gk. *thrix*, hair; *thallos*, young shoot.] Having a filamentous thallus, as certain algae; *appl.* growth of filament by division of intercalary meristematic cells.

trichotomous (trikōt'ōmūs) *a.* [Gk. *tricha*, threefold; *tome*, cutting.] Divided into three branches.

trichroic (trikrō'ik) *a.* [Gk. *tria*, three; *chros*, colour.] Showing three different colours when seen in three different aspects.

trichromatic (trikrōmāt'ik) *a.* [Gk. *tria*, three; *chroma*, colour.] Able to perceive the three primary colours; trichromic.

tricipital (trisp'itāl) *a.* [L. *tres*, three; *caput*, head.] Having three heads or insertions, as triceps.

triccoccus (trikōk'ūs) *a.* [Gk. *tria*, three; *kōkκος*, kernel.] *Appl.* a three-carpel fruit.

triconodont (trikō'nōdōnt) *a.* [Gk. *tria*, three; *konos*, cone; *odous*, tooth.] *Appl.* tooth with three crown prominences in a line parallel to jaw axis.

tricostate (trikōs'tāt) *a.* [L. *tres*, three; *costa*, rib.] With three ribs.

tricotyledonous (trikōtīlē'dōnūs) *a.* [Gk. *tria*, three; *kotyledon*, cup-like hollow.] With three cotyledons.

tricrotic (trikrōt'ik) *a.* [Gk. *tria*, three; *krotein*, to beat.] Having a triple beat in the arterial pulse.

tricurral (trikroor'āl) *a.* [L. *tres*, three; *crus*, leg.] With three branches.

tricuspid (trikūs'pīd) *a.* [L. *tres*, three; *cuspis*, point.] Three-

pointed; *appl.* triangular valve of heart.

tricuspidate (trikūs'pīdāt) *a.* [L. *tres*, three; *cuspis*, point.] Having three points; *appl.* leaf.

tridactyl (tridāk'til) *a.* [Gk. *tria*, three; *daktylos*, finger.] Having three digits; with three jaws, *appl.* pedicellariae; tridactyle.

tridentate (tridēn'tāt) *a.* [L. *tridens*, three-pronged.] Having three tooth-like divisions.

tridynamous (trīdīn'āmūs) *a.* [Gk. *tria*, three; *dynamis*, power.] With three long and three short stamens.

trifacial (trifā'shlāl) *a.* [L. *tres*, three; *facies*, face.] *Appl.* fifth cranial nerve, the trigeminal.

trifarious (trifā'riūs) *a.* [L. *trifarius*, of three sorts.] In groups of three; of three kinds; in three rows; having three surfaces.

trifid (trī'fid) *a.* [L. *trifidus*, three-forked.] Cleft to form three lobes.

triflagellate (triflāj'ēlāt) *a.* [L. *tres*, three; *flagellum*, whip.] Having three flagella.

trifoliate (trifō'liāt) *a.* [L. *tres*, three; *folium*, leaf.] Having three leaves growing from same point.

trifoliolate (trifō'liōlāt) *a.* [L. *tres*, three; *dim.* of *folium*, leaf.] With three leaflets growing from same point.

trifurcate (trifūr'kāt) *a.* [L. *trifurcatus*, three-forked.] With three forks or branches.

trigamma (trigām'ā) *n.* [Gk. *tria*, three; *γ*, gamma.] Three-pronged forked wing venation in Lepidoptera.

trigamous (trīg'āmūs) *a.* [Gk. *tria*, three; *gamos*, marriage.] *Appl.* flower-head with staminate, pistillate, and hermaphrodite flowers.

trigeminal (trijēm'ināl) *a.* [L. *trigeminus*, triplet.] Consisting of, or *pert.*, three structures; *appl.* fifth cranial nerve, with ophthalmic, maxillary, and mandibular divisions; *appl.* arrangement of pairs of pores in three rows in ambulacra of some echinoids.

trigeneric (trijēnēr'ik) *a.* [L. *tres*, three; *genus*, race.] *Pert.* or derived from three genera; *appl.* hybrids.

trigenic (trijēn'ik) *a.* [Gk. *tria*, three; *genos*, descent.] *Pert.* or controlled by three genes.

triḡon (tri'gōn) *n.* [Gk. *tria*, three; *gonia*, angle.] Triangle of cusps of upper jaw molar teeth.

trigonal (tri'gōnāl) *a.* [Gk. *trigonos*, triangular.] Ternary or triangular when *appl.* symmetry with three parts to a whorl; *appl.* three-sided stems.

trigone (triḡōn) *n.* [Gk. *trigonon*, triangle.] Also trigonum,—a small triangular space, as olfactory trigone, trigonum vesicae, etc.

trigonid (tri'gōnid) *n.* [Gk. *trigonon*, triangle.] Triangle of cusps of lower molar teeth.

trigonom (tri'gōnūm) *n.* [Gk. *trigonon*, triangle.] A trigone; os trigonum, posterior process of talus forming a separate ossicle.

trigynous (tri'jīnūs) *a.* [Gk. *tria*, three; *gynē*, woman.] Having three styles.

triheterozygote (tri'hēt'ērōzī'gōt) *n.* [Gk. *tria*, three; *heteros*, other; *zygotos*, yoked together.] An organism heterozygous for three genes.

trijugate (tri'joogāt) *a.* [L. *tres*, three; *jugum*, yoke.] Having three pairs of leaflets.

trilabiate (tri'lā'bīāt) *a.* [L. *tres*, three; *labium*, lip.] With three lips.

trilacunar (tri'lākū'nār) *a.* [L. *tres*, three; *lacuna*, cavity.] With three lacunae; having three leaf-gaps, *appl.* nodes.

trilobate (tri'lōbāt) *a.* [Gk. *tria*, three; *lobos*, lobe.] Three-lobed.

trilocular (tri'lōk'ulār) *a.* [L. *tres*, three; *loculus*, compartment.] Having three cells or loculi.

trilophodont (tri'lōf'ōdōnt) *a.* [Gk. *tria*, three; *lophos*, crest; *odous*, tooth.] Having three-crested teeth.

trilophous (tri'lōf'ūs) *a.* [Gk. *tria*, three; *lophos*, crest.] *Appl.* rayed

spicule with three rays branched or ridged.

trimerous (trīm'ērūs) *a.* [Gk. *tria*, three; *meros*, part.] Composed of three or multiples of three, as parts of flower.

trimitic (trīmīt'ik) *a.* [Gk. *tria*, three; *mitos*, thread.] Having three kinds of hyphae: supporting, connective, and reproductive. *Cf.* dimitic.

trimonoecious (trīmōnē'siūs) *a.* [Gk. *tria*, three; *monos*, alone; *oikos*, house.] With male, female, and hermaphrodite flowers on the same plant.

trimorphism (trīmōr'fizm) *n.* [Gk. *tria*, three; *morphe*, form.] Occurrence of three distinct forms or forms of organs in one life-cycle or in one species; trimorphous condition.

trinervate (trinēr'vāt) *a.* [L. *tres*, three; *nervus*, sinew.] Having three veins or ribs running from base to margin of leaf.

trinomial (trinō'miāl) *a.* [L. *tres*, three; *nomen*, name.] *Appl.* names consisting of three terms; *cf.* binomial.

trioid (tri'ōd) *n.* [Gk. *trioidos*, meeting of three roads.] A three-rayed or triactinal spicule in sponges.

trioecious (triē'siūs) *a.* [Gk. *tria*, three; *oikos*, house.] Producing male, female, and hermaphrodite forms on different plants; trioicous.

triosseum (triōs'ēüm) *a.* [L. *tres*, three; *ossa*, bones.] *Appl.* foramen, the opening between coracoid, clavicle, and scapula.

triovulate (triōv'ulāt) *a.* [L. *tres*, three; *ovum*, egg.] Having three ovules.

tripartite (tripār'tīt, trip'ärtīt) *a.* [L. *tres*, three; *partitus*, separated.] Divided into three lobes, as a leaf.

tripetalous (tripēt'ālūs) *a.* [Gk. *tria*, three; *petalon*, leaf.] Having three petals.

triphyllous (trifīl'ūs, trif'ilūs) *a.* [Gk. *tria*, three; *phyllon*, leaf.] Three-leaved; trifoliate.

tripinnate (trɪpɪn'æt) *a.* [L. *tres*, three; *pinna*, feather.] Thrice pinnate; divided pinnately three times.

tripinnatifid (trɪpɪnāt'ɪfɪd) *a.* [L. *tres*, three; *pinna*, feather; *findere*, to cleave.] Divided three times in a pinnatifid manner.

tripinnatisect (trɪpɪnāt'ɪsɛkt) *a.* [L. *tres*, three; *pinna*, feather; *secare*, to cut.] Thrice pinnatisect; three times lobed with divisions nearly to midrib.

triplechinoid,—*see* diadematoïd.

triple-nerved,—*appl.* a leaf with three prominent veins.

triplex (trɪp'lɛks) *a.* [L. *triplex*, three-fold.] Having three dominant genes, in polyploidy.

triplicostate (trɪp'likɔs'tāt) *a.* [L. *tripplus*, triple; *costa*, rib.] Having three ribs.

triploblastic (trɪp'lɔblās'tɪk) *a.* [Gk. *triploos*, triple; *blastos*, bud.] With three primary germinal layers, epiblast, mesoblast, hypoblast.

triplocaulescent (trɪp'lɔkɔlēs'ɛnt) *a.* [L. *tripplus*, triple; *caulis*, stalk.] Having axes of the third order.

triploid (trɪp'lɔɪd) *a.* [Gk. *triploos*, threefold.] With treble the normal number of gametic chromosomes. *n.* An organism with three haploid chromosome sets.

triplostichous (trɪplɔs'tɪkūs) *a.* [Gk. *triploos*, threefold; *stichos*, row.] Arranged in three rows, as of cortical cells on small branches of Chara; *appl.* eyes with preretinal, retinal, and postretinal layers, as of larval scorpion.

tripod (trɪ'pɔd) *n.* [Gk. *tria*, three; *pous*, foot.] A tripod-shaped or three-legged spicule.

tripolar (trɪp'ɔlār) *a.* [Gk. *tria*, three; *polos*, axis.] *Appl.* division of chromatin to three poles in diseased cells instead of normal two poles, in mitosis.

tripolite (trɪp'ɔlɪt) *n.* [*Tripolis* in North Africa; Gk. *lithos*, stone.] Siliceous deposit formed mainly of frustules of diatoms; diatomaceous earth, infusorial earth, kieselguhr.

tripton (trɪp'tɔn) *n.* [Gk. *triptos*, pounded.] Non-living seston, *q.v.*

tripus (trɪp'ūs) *n.* [L. *tripus*, tripod.] Posterior Weberian ossicle, adjoining air-bladder; trifurcation of coeliac artery into left or coronary gastric, hepatic, and splenic arteries, tripus Halleri.

triquetrous (trɪkwɛt'rūs) *a.* [L. *triquetrus*, three-cornered.] *Appl.* stem with three angles and three concave faces; *appl.* three-cornered or wedge-shaped bone.

triquetrum (trɪkwɛt'rūm) *n.* [L. *triquetrum*, triangle.] The cuneiform carpal bone; triquetral or Wormian bone.

triquinate (trɪkwɪ'nāt) *a.* [L. *tres*, three; *quini*, five each.] Divided into three, with each lobe again divided into five.

triradial (trɪrā'diāl) *a.* [L. *tres*, three; *radius*, ray.] Having three branches as radii from one centre; triradiate; *appl.* orbital sulcus.

trisepalous (trɪsɛp'alūs) *a.* [Gk. *tria*, three; F. *sépale*, sepal.] Having three sepals.

triseptate (trɪsɛp'tāt) *a.* [L. *tres*, three; *septum*, partition.] Having three partitions or septa.

triseria (trɪsɛ'riāl) *a.* [L. *tres*, three; *series*, row.] Arranged in three rows; trifarious; having three whorls.

trisomic (trɪsɔ'mɪk) *a.* [Gk. *tria*, three; *soma*, body.] *Pert.*, or having, three homologous chromosomes.

trisporous (trɪspɔ'rūs) *a.* [Gk. *tria*, three; *sporos*, seed.] Having three spores; trisporic.

tristachyous (trɪstāk'kiūs) *a.* [Gk. *tria*, three; *stachys*, ear of corn.] With three spikes.

tristichous (trɪs'tɪkūs) *a.* [Gk. *tria*, three; *stichos*, row.] Arranged in three vertical rows.

tristylly (trɪstɪ'li) *n.* [Gk. *tria*, three; *stylos*, pillar.] The condition of having short, medium-length and long styles.

triternate (trɪtɛr'nāt) *a.* [L. *tres*, three; *terni*, three each] Thrice ternately divided.

tritibial (trítib'íäl) *n.* [L. *tres*, three; *tibia*, shin.] Compound ankle-bone formed when centræle unites with talus.

tritoblasts (trít'öblästs) *n. plu.* [Gk. *tritos*, third; *blastos*, bud.] A generation of Neosporidia produced by deutoblasts and in turn giving rise to teloblasts.

tritocerebrum (trít'ösēr'ëbrüm) *n.* [Gk. *tritos*, third; L. *cerebrum*, brain.] Third lobe of insect brain indicated during development; part of brain of higher Crustacea, consisting of antennal nerve centres; also tritocerebrum.

tritocone (trít'ökön) *n.* [Gk. *tritos*, third; *konos*, cone.] Premolar cusp.

tritonymph (trít'onümf) *n.* [Gk. *tritos*, third; *nymphē*, chrysalis.] Developmental stage or instar following the deutonymph in Acaridae.

tritor (trít'tör) *n.* [L. *tritor*, grinder.] Grinding surface of a tooth.

tritosternum (trít'östēr'nüm) *n.* [Gk. *tritos*, third; *sternon*, chest.] Sternite of third segment of pro-soma or first segment of podosoma in Acarina.

tritozoid (trít'tözō'oid) *n.* [Gk. *tritos*, third; *zoon*, animal; *eidōs*, form.] A zoid of third generation.

tritubercular (trítübēr'küläär) *a.* [L. *tres*, three; *tuberculum*, small hump.] *Appl.* molar teeth with three cusps; tricuspid.

trituberculy (trítübēr'küli) *n.* [L. *tres*, three; *tuberculum*, small hump.] Theory of molar tooth development.

triungulin (triüng'gülin) *n.* [L. *tres*, three; *ungula*, claw.] Small, six-legged larva of Strepsiptera and Cantharidae; triungulus.

trivalent (trílv'älent) *n.* [L. *tres*, three; *valere*, to be strong.] Association of three chromosomes held together by chiasmata between diplotene and metaphase of first division in meiosis. *a. Appl.* amboceptor which can bind three different complements.

trivium (trív'iūm) *n.* [L. *trivium*, cross-road.] The three rays of starfish farthest from madreporite; *cf.* bivium.

trizoic (trizō'ík) *a.* [Gk. *tria*, three; *zoon*, animal.] *Appl.* protozoan spore containing three sporozoites.

trochal (trō'kāl) *a.* [Gk. *trochos*, wheel.] Wheel-shaped; *appl.* anterior disc of Rotifera.

trochantellus (trōk'ántēl'ūs) *n.* [Gk. *trochanter*, runner.] A segment of leg between trochanter and femur, in some insects.

trochanter (trōkän'tēr) *n.* [Gk. *trochanter*, runner.] *Appl.* processes or prominences at upper end of thigh-bone—greater (major), lesser (minor), and third (tertius); small segment of leg between coxa and femur, in insects and spiders.

trochanteric fossa,—a deep depression on medial surface of neck of femur.

trochantin (trōkän'tin) *n.* [Gk. *trochanter*, runner.] A small sclerite at base of coxa of insect leg; sclerite for articulation of mandible in Orthoptera; lesser trochanter.

trochate (trōk'ät) *a.* [Gk. *trochos*, wheel.] Having a wheel-like structure; wheel-shaped; trochiferous, trochiform.

trochite (trō'kit) *n.* [Gk. *trochos*, wheel.] Segment or joint of stem of Crinoidea.

trochlea (trōk'lēä) *n.* [Gk. *trochilia*, pulley.] A pulley-like structure through which a tendon passes, as of humerus, femur, orbit.

trochlear (trōk'lēär) *a.* [Gk. *trochilia*, pulley.] Shaped like a pulley; *pert.* trochlea; *appl.* nerve, pathetic or fourth cranial nerve to superior oblique muscle of eye.

trochoblasts (trōk'öblästs) *n. plu.* [Gk. *trochos*, wheel; *blastos*, bud.] Portions of segmenting egg destined to become prototroch of a trochosphere.

trochoid (trō'koid) *a.* [Gk. *trochos*, wheel; *eidōs*, form.] Wheel-shaped; capable of rotating motion, as a pivot-joint.

trochophore (trök'öfër), **trochosphere** (trök'ösfër) *n.* [Gk. *trochos*, wheel; *sphaira*, globe.] Free-swimming pelagic larval stage of many worms and some molluscs.

trochus (trök'üs) *n.* [Gk. *trochos*, wheel.] Inner, anterior, coarser ciliary zone of rotifer disc; *cf.* cingulum.

tropæic (tröp'ëik) *a.* [Gk. *tropis*, keel.] Keel-shaped; cariniform.

trophallaxis (tröfäl'äksis) *n.* [Gk. *trophe*, nourishment; *allaxis*, interchange.] Interchange of food between larvae and imagines in certain insects; reciprocal feeding.

trophamnion (tröfäm'nïön) *n.* [Gk. *trophe*, nourishment; *amnion*, foetal membrane.] Sheath around developing egg of some insects, and passing nourishment to the embryo.

trophectoderm (tröfëk'tödërm) *n.* [Gk. *trophe*, nourishment; *ektos*, outside; *derma*, skin.] Outer layer of mammalian blastocyst; trophoblast, *q.v.*

tropi (trö'fi) *n. plu.* [Gk. *trophe*, nourishment.] Hard chitinous chewing organs of rotifers; mouth-parts of insects; mandibles and maxillae collectively.

trophic (tröf'ik) *a.* [Gk. *trophe*, nourishment.] *Pert.*, or connected with, nutrition; *appl.* nerves, stimuli, enlargement, etc.; *appl.* hormones influencing activity of endocrine glands and growth, as those secreted by the anterior lobe of the hypophysis; *appl.* nucleus: trophonucleus, *q.v.*

trophidium (tröfid'iüm) *n.* [Gk. *trophe*, brood; *idion*, dim.] The first larval stage of certain ants.

trophifer, trophiger (tröf'ifër, -jër) *n.* [Gk. *trophe*, nourishment; L. *ferre*, *gerere*, to carry.] Postero-lateral region of insect head with which mouth-parts articulate.

trophoblast (tröf'öbläst) *n.* [Gk. *trophe*, nourishment; *blastos*, bud.] The outer layer of cells of epiblast, or of morula; trophoderm, *q.v.*

trophochromatin (tröf'ökrö'mätin) *n.*

[Gk. *trophe*, nourishment; *chroma*, colour.] Vegetative chromatin, or that which regulates metabolism and functions; *cf.* idiochromatin.

trophochrome (tröf'ökröm) *a.* [Gk. *trophe*, nourishment; *chroma*, colour.] *Appl.* cells with secretory granules giving staining reaction for mucus; mucoserous, mucalbuminous.

trophochromidia (tröf'ökrömid'iä) *n. plu.* [Gk. *trophe*, nourishment; *chroma*, colour.] Vegetative chromidia; *cf.* idiochromidia.

trophocyst (tröf'ösist) *n.* [Gk. *trophe*, nourishment; *kystis*, bag.] Primordial structure giving rise to a sporangiophore, as in *Pilobolus*.

trophocytes (tröf'ösits) *n. plu.* [Gk. *trophe*, nourishment; *kytos*, hollow.] Fat-cells used as food, in insect development.

trophoderm (tröf'ödërm) *n.* [Gk. *trophe*, nourishment; *derma*, skin.] Outer layer of chorion; trophectoderm with a mesodermal cell layer.

trophodisc (tröf'ödisk) *n.* [Gk. *trophe*, nourishment; *diskos*, plate.] Female gonophore of certain Hyd-rozoa.

trophogone (tröfögö'në) *n.* [Gk. *trophe*, nourishment; *gone*, seed.] A nutritive organ in Ascomycetes, considered as an antheridium which has lost its normal function.

trophology (tröföl'öji) *n.* [Gk. *trophe*, nourishment; *logos*, discourse.] The science of nutrition.

trophonemata (tröf'önë'mätä) *n. plu.* [Gk. *trophe*, nourishment; *nema*, thread.] Uterine villi or hair-like projections which transfer nourishment to embryo through spiracle of elasmobranchs; villi.

trophont (tröfönt) *n.* [Gk. *trephein*, to feed; *on*, being.] Growth stage in Holotricha.

trophonucleus (tröf'önü'klëüs) *n.* [Gk. *trophe*, nourishment; L. *nucleus*, kernel.] Larger nucleus of binuclear protozoa, regulating metabolism and growth; macronucleus, meganucleus; *cf.* kinetonucleus.

trophophore (trōfōfōr) *n.* [Gk. *trophe*, nourishment; *pherein*, to bear.] In sponges, an internal bud or group of cells destined to become a gemmule.

trophoplasm (trōf'ōplāzm) *n.* [Gk. *trophe*, nourishment; *plasma*, 'mould.] Vegetative or nutritive part of cell, *opp.* kinoplasm; *cf.* idioplasm.

trophoplast (trōf'ōplāst) *n.* [Gk. *trophe*, nourishment; *plastos*, moulded.] A cell, nucleated or not; a plastid.

trophosome (trōf'ōsōm) *n.* [Gk. *trophe*, nourishment; *soma*, body.] The nutritive polypoid persons of a hydroid colony.

trophospongia (trōf'ōspūn'jiā) *n.* [Gk. *trophe*, nourishment; *spongia*, sponge.] Spongy vascular layer of mucous membrane between uterine wall and trophoblast.

trophospongium (trōf'ōspūn'jiūm) *n.* [Gk. *trophe*, nourishment; *spongia*, sponge.] Canalisation of nerve cells, canaliculi occupied by branching processes of neuroglia cells.

trophotaeniae (trōf'ōtē'nīē) *n. plu.* [Gk. *trophe*, nourishment; *tainia*, ribbon.] Embryonic rectal processes, for absorption of nutritive substances from ovarian fluid, in Goodeidae and certain other fishes.

trophotaxis (trōf'ōtāk'sis) *n.* [Gk. *trophe*, nourishment; *taxis*, arrangement.] Response to stimulation by an agent which may serve as food.

trophothylax (trōf'ōthī'lāks) *n.* [Gk. *trophe*, nourishment; *thylax*, sack.] Food-pocket on first abdominal segment of certain ant larvae.

trophotropism (trōf'ōtrōptzm) *n.* [Gk. *trophe*, nourishment; *tropē*, turn.] Tendency of an organism to turn towards a food supply.

trophozoite (trōf'ōzō'it) *n.* [Gk. *trophe*, nourishment; *zoon*, animal.] The adult stage of a sporozoan.

trophozooid (trōf'ōzō'oid) *n.* [Gk. *trophe*, nourishment; *zoon*, animal;

eidos, form.] A nutritive zooid of free-swimming tunicate colonies.

tropibasic (trōpibā'sik) *a.* [Gk. *tropē*, turn; *basis*, base.] *Appl.* chondrocranium with small hypophysial fenestra and common trabecula; *cf.* platybasic.

tropic (trōp'ik) *a.* [Gk. *tropē*, turn.] *Pert.* tropism; *appl.* movement or curvature in response to a directional or unilateral stimulus.

tropine (trōp'in) *n.* [Gk. *tropē*, turn.] Opsonin.

tropism (trōp'izm) *n.* [Gk. *tropē*, turn.] Tendency of an organism to react in a certain way to a certain kind of stimulus; a tendency to move towards (positive) or away from (negative) the source of a stimulus; growth curvature movement; movement in response to stimuli, in sessile animals; *cf.* taxis.

tropocollagen (trōpōkōl'ājēn) *n.* [Gk. *tropos*, mode; *kolla*, glue; *gennaein*, to produce.] A particle which unites with others to form a collagen.

trophophil (trōp'ōfil) *a.* [Gk. *tropos*, turn; *philos*, loving.] Tolerating alternating periods of cold and warmth, or of moisture and dryness; adapted to seasonal changes; *appl.* vegetation; tropophilous.

tropophyte (trōp'ōfit) *n.* [Gk. *tropos*, turn; *phyton*, plant.] A changing plant, or one which is more or less hygrophilous in summer and xerophilous in winter; a plant growing in the tropics.

tropotaxis (trōp'ōtāk'sis) *n.* [Gk. *tropos*, turn; *taxis*, arrangement.] Movement leading to equal stimulation of symmetrically placed sense organs; symmetrical orientation.

true ribs,—ribs which are directly connected with sternum.

true soil,—solum.

trumpet hyphae,—elongated cells with enlarged ends in contact with those of adjoining cells, and comparable to sieve tubes, as in medulla of thallus in Laminaria.

truncate (trüŋg'kât) *a.* [L. *truncatus*, cut off.] Terminating abruptly, as if tapering end were cut off.

truncus arteriosus,—most anterior region of amphibian, or foetal, heart, through which blood is driven from ventricle.

trunk (trüŋgk') *n.* [Fr. *tronc*, from *truncus*, stem of tree.] Main stem of tree; body exclusive of head and extremities; main stem of a vessel or nerve; truncus; proboscis, as of elephant.

trunk legs,—pereopods of decapods, thoracic locomotory legs.

tryma (tri'mā) *n.* [Gk. *tryme*, hole.] A drupe with separable rind and two-valved endocarp with spurious dissepiments, as walnut.

trypanomonad (tri'p'ănômôn'äd) *a.* [Gk. *trypan*, to bore; *monas*, unit.] Appl. phase in development of trypanosome while in its invertebrate host; crithidial.

trypanorhynchus (tri'p'ănöring'kūs) *n.* [Gk. *trypan*, to bore; *rhyngchos*, snout.] A spiniferous protuberant proboscis accompanying each phyllidium in certain Cestodea.

trypsin (tri'psin) *n.* [Gk. *tryein*, to rub down; *pepsis*, digesting.] Proteolytic enzyme of pancreatic juice; similar enzyme of various plants and animals.

trypsinogen (tri'psin'ojën) *n.* [Gk. *tryein*, to rub down; *pepsis*, digesting; *-genes*, producing.] Substance secreted by cells of pancreas converted into trypsin by enterokinase of succus entericus.

tryptic (tri'ptik) *a.* [Gk. *tryein*, to rub down; *pepsis*, digesting.] Produced by, or *pert.*, trypsin.

tryptophane (tri'töfän) *n.* [Gk. *tryein*, to rub down; *pepsis*, digesting; *phainein*, to appear.] An amino-acid derivative elaborated in plants and essential for nutrition of animals; $C_{11}H_{12}O_2N_2$.

tuba (tü'bā) *n.* [L. *tuba*, trumpet.] A salpinx or tube, as tuba acustica or auditiva, the Eustachian tube; tuba uterina, Fallopian tube.

tubal,—*pert.* a tuba or tube.

tubar (tü'bār) *a.* [L. *tubus*, pipe.] Consisting of an arrangement of tubes, or forming a tube, as *appl.* system and skeleton in sponges.

tubate (tü'bāt) *a.* [L. *tubus*, pipe.] Tube-shaped; tubular; tubiform.

tube (tüb) *n.* [L. *tubus*, pipe.] Any tubular structure; cylindrical structure, as protective enveloping case of many animals; a mollusc siphon.

tube-feet,—organs connected with the water vascular system in various echinoderms, for locomotion, also modified for sensory, food-catching, and respiratory functions.

tuber (tü'bēr) *n.* [L. *tuber*, knob.] Thickened fleshy underground stem with surface buds; rounded protuberance.

tuber cinereum,—hollow protuberance of grey matter between optic chiasma and corpora mamillaria of hypothalamus; tuber arterius.

tuber vermis,—part of superior vermis of cerebellum, continuous laterally with inferior semilunar lobules.

tubercle (tü'bërkl) *n.* [L. *tuberculum*, small hump.] A small rounded protuberance; root-swelling or nodule; a bulbil; rib-knob; a cusp; tuberculum.

tuberculate (tü'bër'külat) *a.* [L. *tuberculum*, small hump.] *Pert.* resembling, or having tubercles.

tuberculose (tü'bër'külös) *a.* [L. *tuberculum*, small hump.] Having many tubercles.

tuberiferous (tü'bërif'ërüs) *a.* [L. *tuber*, hump; *ferre*, to bear.] Bearing or producing tubers.

tuberiform (tü'bëriförm) *a.* [L. *tuber*, hump; *forma*, shape.] Resembling or shaped like a tuber; tuberoid.

tuberosity (tü'bërös'it) *n.* [L. *tuber*, hump.] Rounded eminence on a bone, as for muscle attachment.

tuberous (tü'bërüs) *a.* [L. *tuber*, hump.] Covered with or having many tubers; tuberosc.

tube-tonsil,—lymphoid tissue near pharyngeal opening of auditory tube.

tubicolous (tübik'ölüs) *a.* [L. *tubus*, tube; *colere*, to inhabit.] Inhabiting a tube.

tubicorn (tū'bikôrn) *a.* [L. *tubus*, tube; *cornu*, horn.] With hollow horns.

tubifacient (tū'bifā'shiënt) *a.* [L. *tubus*, tube; *faciens*, making.] Tube-making, as some worms.

tubiflorous,—tubuliflorous.

tubilingual (tū'biling'gwäl) *a.* [L. *tubus*, tube; *lingua*, tongue.] Having a tubular tongue, adapted for sucking.

tubiparous (tübip'ärüs) *a.* [L. *tubus*, tube; *parere*, to beget.] Secreting tube-forming material; *appl.* glands.

tubo-ovarian (tū'böövā'riän) *a.* [L. *tubus*, pipe; *ovarium*, ovary.] Of or *pert.* oviduct and ovary.

tubotympanic (tū'bötimpän'ik) *a.* [L. *tubus*, pipe; *tympanum*, drum.] *Appl.* recess between first and third visceral arches, from which are derived the tympanic cavity and Eustachian tube.

tubular (tū'bülär) *a.* [L. *tubulus*, small tube.] Having the form of a tube or tubule; tubiform, tubuliform; containing tubules; *appl.* dentine: orthodentine

tubulate (tū'bülät) *a.* [L. *tubulus*, small tube.] Tubiform; tubular; tubuliferous.

tubule (tū'bül) *n.* [L. *tubulus*, small tube.] Any small hollow, cylindrical structure; tubulus.

tubuli,—*plu.* of tubulus.

tubuli contorti,—the convoluted seminiferous tubules.

tubuli recti,—straight tubules connecting seminiferous tubules and rete testis.

tubuliferous (tū'bülif'ërüs) *a.* [L. *tubulus*, small tube; *ferre*, to carry.] Having a tube or tubules.

tubuliflorous (tū'büliflō'rüs) *a.* [L. *tubulus*, small tube; *flos*, flower.] Having florets with tubular corolla.

tubuliform (tū'büliförm) *a.* [L. *tubulus*, small tube; *forma*, shape.] Tube-shaped; *appl.* certain spinning glands.

tubulose (tū'bölös) *a.* [L. *tubulus*, small tube.] Having, or composed

of, tubular structures, as an aster head, a tubipore coral; hollow and cylindrical.

tubulus (tū'bülüs) *n.* [L. *tubulus*, small tube.] A hymeneal pore; cylindrical ovipositor; a tubule. *Plu.* Any small tubular structures, as tubuli lactiferi, recti, seminiferi.

tumid (tū'nid) *a.* [L. *tumidus*, swollen.] Swollen; turgid.

tundra (toon'drä) *n.* [Russ.] Treeless region with permanently frozen subsoil.

tunic (tūn'ik), *n.* [L. *tunica*, coating.] An investing membrane or tissue, as those of bulbs, eye, kidney, ovary, testis, arteries, etc.

tunica,—a tunic; apical meristematic cells giving rise to protoderm.

tunica albuginea,—see albuginea.

tunicate (tū'nikät) *a.* [L. *tunica*, coating.] Provided with a tunic or test; *appl.* bulbs with numerous concentric broad layers; enveloped in tough test or mantle. *n.* A sea-squirt or other form of Urochorda.

tunicine (tū'nisín) *n.* [L. *tunica*, coating.] A substance related to cellulose, in tunic of ascidians; tunicin; animal cellulose.

tunicle (tū'níkl) *n.* [L. *tunicula*, little coat.] A natural covering; integument.

tunnel of Corti [*A. Corti*, Italian histologist]. Triangular tunnel enclosed by two rows of pillars of Corti and basilar membrane.

turacin (tū'räsín) *n.* [*Turaco*, an African bird.] A water-soluble red plumage pigment containing copper, in turaco and other Musophagidae.

turacoverdin (tū'räkövä'r'dín) *n.* [*Turaco*; *F. vert*, green.] A green feather pigment containing iron, in certain plantain-eaters or Musophagidae.

turbinal (tūr'binäl) *a.* [L. *turbo*, whirl.] Spirally rolled or coiled, as bone or cartilage.

turbinate (tūr'binät) *a.* [L. *turbo*, whirl.] Top-shaped; *appl.* pileus; *appl.* shells; *appl.* certain nasal bones, or conchae nasales.

turbinulate (turbīn'ulāt) *a.* [*Dim.* of *L. turbo*, whirl.] Shaped like a small top; *appl.* certain apothecia.

turgescence (tūrgēs'ēns) *n.* [*L. turgescere*, to swell.] The process of distention of living cell tissue, due to increased internal pressure; the turgescence condition; turgor, turgidity.

turgor (tūr'gōr) *n.* [*L. turgere*, to swell.] Distention of cells or tissues due to internal pressure; rigidity of plant tissue due to inflation of cells with water.

turio (tūr'riō), **turion** (tūr'riōn) *n.* [*L. turio*, shoot.] Young scaly shoot budded off from underground stem; winter-bud, as of *Hydrocharis*.

tutamen (tūtā'mēn) *n.* [*L. tutamen*, protection.] Means of protection; a protective structure, as eye-lid. *Plu.* *tutamina*.

tychocoen (tik'ōsēn) *n.* [*Gk. tyche*, chance; *koinos*, common.] Those members of a biocoenosis which thrive under different habitat conditions. *Opp.* *eucoen*.

tycholimnetic (tik'ōlimnēt'ik) *a.* [*Gk. tyche*, chance; *limne*, marshy lake.] Temporarily attached to the bed of a lake and at other times floating; *appl.* certain fresh-water organisms.

tychopotamic (tik'ōpōtām'ik) *a.* [*Gk. tyche*, chance; *potamos*, river.] Thriving only in backwaters, *appl.* *potamoplankton*.

tylhexactine (tīl'hēksāk'tin) *n.* [*Gk. tylos*, knob; *hex*, six; *aktis*, ray.] A hexactine spicule with rays ending in knobs.

tylosis (tīlō'sis) *n.* [*Gk. tylos*, callus.] Development of irregular cells in a cell cavity; a cellular intrusion into vessel through pits of parenchyma cells; a callosity; callus formation.

tylosoid (tī'lōsoid) *n.* [*Gk. tylos*, knob; *eidōs*, form.] A resin duct filled with parenchymatous cells.

tylostyle (tī'lōstīl) *n.* [*Gk. tylos*, knob; *stylos*, pillar.] Spicule pointed at one end, knobbed at other.

tylotate (tīlō'tāt) *a.* [*Gk. tylos*, knobbed.] With a knob at each end.

tylote (tīlō't, tī'lōt) *n.* [*Gk. tylos*, knobbed.] A slender dumbbell-shaped spicule.

tylotic (tīlō't'ik) *a.* [*Gk. tylos*, callus.] Affected by tylosis.

tylotoxea (tī'lōtōk'sēā) *n.* [*Gk. tylos*, knob; *oxys*, sharp.] A tylote with one sharp end, directed towards surface of sponge.

tylus (tī'lūs) *n.* [*Gk. tylos*, knob.] A medial protuberance on head of certain Hemiptera.

tymbal,—*timbal*, *g.v.*

tympanic (tīmpān'ik) *a.* [*Gk. tympanon*, drum.] *Pert.* *tympanum*.

tympanohyal (tīm'pānōhī'āl) *n.* [*Gk. tympanon*, drum; *hyoeides*, Y-shaped.] *Pert.* *tympanum* and hyoid; part of hyoid arch embedded in petro-mastoid.

tympanum (tīm'pānūm) *n.* [*Gk. tympanon*, drum.] The epiphragm of mosses; the drum-like cavity constituting middle ear; drum of ear; membrane of auditory organ on tibia, metathorax, or abdomen of insect; inflatable air-sac on neck of some Tetraoninae.

type (tīp) *n.* [*L. typus*, pattern.] Sum of characteristics common to a large number of individuals, serving as a ground for classification; a primary model; the actual specimen described as the original of a new genus or species.

type locality,—the locality in which the holotype or other type used for designation of a species was found.

type number,—the most frequently occurring chromosome number in a taxonomic group; modal number.

typhlosole (tīf'lōsōl) *n.* [*Gk. typhlos*, blind; *solen*, channel.] Median dorsal longitudinal fold of intestine projecting into lumen of gut of some invertebrates.

typical (tīp'ikāl) *a.* [*Gk. typos*, pattern.] *Appl.* specimen conforming to type or primary example; exhibiting in marked degree the essential characteristics of genus or species.

typogenesis (tí'pójén'ésis) *n.* [Gk. *typos*, pattern; *genesis*, descent.] Phase of rapid type-formation in phylogenesis; quantitative or 'explosive' evolution.

typology (típöl'öji) *n.* [Gk. *typos*, pattern; *logos*, discourse.] The study of types, as of constitutional types.

typolysis (típöl'isis) *n.* [Gk. *typos*, pattern; *lysis*, loosing.] Phase preceding extinction of type; phylogerontic stage.

typonym (tí'pönim) *n.* [Gk. *typos*, pattern; *onyma*, name.] A name designating or based on a type specimen or type species.

typostasis (típöst'ásis, tipóstá'sis) *n.* [Gk. *typos*, pattern; *stasis*, halt.] Relative absence of type formation, a static phase in phylogenesis.

tyramine (tí'rämín) *n.* [Gk. *tyros*, cheese; *ammoniacum*, resinous gum.] A substance causing rise of arterial pressure, formed by bacterial action on tyrosine; also secreted by Cephalopoda; $C_8H_{11}ON$.

tyrosine (tí'rösín) *n.* [Gk. *tyros*, cheese.] An amino-acid synthesised in plants, and utilised in animals, as in formation of melanin, adrenaline, and thyroxine; $C_9H_{11}O_3N$.

Tyson's glands [*E. Tyson*, English anatomist]. Sebaceous glands round the corona of the glans penis.

U

ula (ū'lā) *n. plu.* [Gk. *oula*, the gums.] The gums; gingivae.

uletic (ülét'ík) *a.* [Gk. *oulon*, gum.] *Pert.* the gums; gingival.

uliginous (ülij'inūs) *a.* [L. *uliginosus*, oozy.] Swampy; growing in swampy soil; uliginose; paludicole.

ulna (ül'nā) *n.* [L. *ulna*, elbow.] A long bone on medial side of forearm parallel with radius.

ulnar (ül'nār) *a.* [L. *ulna*, elbow.] *Pert.* ulna; *appl.* artery, nerve, veins, bone, ligaments.

ulnar nervure,—radiating or cross nervure in wing of insects.

ulnare (ülnä'rē) *n.* [L. *ulna*, elbow.] Bone, in proximal row of carpals, lying at distal end of ulna.

ulnocarpal (ülnökār'pāl) *a.* [L. *ulna*, elbow; *carpus*, wrist.] *Pert.* ulna and carpus.

ulnoradial (ülnörā'diāl) *a.* [L. *ulna*, elbow; *radius*, radius.] *Pert.* ulna and radius.

uloid (ü'loid) *a.* [Gk. *oule*, scar; *eidos*, form.] Resembling a scar.

ulotrichous (ülöt'riküs) *a.* [Gk. *oulos*, woolly; *thrix*, hair.] Having woolly or curly hair.

ultimate cell,—tip cell, *q.v.*

ultimobranchial bodies, — pair of gland rudiments derived from fifth pharyngeal pouches, which later degenerate and disappear; post-branchial or suprapericardial bodies.

umbel (üm'bēl) *n.* [L. *umbella*, *dim.* of *umbra*, shade.] An arrangement of flowers or of polyps springing from a common centre and forming a flat or rounded cluster.

umbella (ümbēl'ä) *n.* [L. *umbella*, sun-shade.] An umbel; umbrella of jelly-fish.

umbellate (üm'bēlät) *a.* [L. *umbella*, shade.] Arranged in umbels.

umbellet,—umbellule.

umbelliferous (üm'bēlif'ērüs) *a.* [L. *umbella*, shade; *ferre*, to carry.] Producing umbels.

umbelliform (ümbēl'iförm) *a.* [L. *umbella*, shade; *forma*, shape.] Shaped like an umbel.

umbelligerous (üm'bēlij'ērüs) *a.* [L. *umbella*, shade; *gerere*, to carry.] Bearing flowers or polyps in umbellate clusters.

umbellula (ümbēl'ülä) *n.* [L. *umbellula*, *dim.* of *umbella*, shade.] A large cluster of polyps at tip of elongated stalk of rachis; umbellule, *q.v.*

umbellulate (ümbēl'ülät) *a.* [L. *umbellula*, small umbel.] Arranged in umbels and umbellules.

umbellule (üm'bēlül) *n.* [L. *umbellula*, small umbel.] A small or secondary umbel.

umbilical (üm'bílí'kál, ümbíl'íkál) *a.* [L. *umbilicus*, navel.] *Pert.* navel, or umbilical cord; *appl.* arteries, veins, tissues, vesicle, plane, etc.; omphalic.

umbilical cord,—navel cord connecting embryo with placenta; funicle or prolongation by which ovule is attached to placenta.

umbilicate (ümbíl'íkát) *a.* [L. *umbilicus*, navel.] Having a central depression; navel-like; omphaloid.

umbilicus (üm'bílí'kūs) *n.* [L. *umbilicus*, navel.] The navel, central abdominal depression at place of attachment of umbilical cord; hilum; basal depression of certain spiral shells; an opening near base of feather; a structure for attachment of thallus in certain lichens.

umbo (üm'bō) *n.* [L. *umbo*, shield-boss.] A protuberance like boss of a shield; swollen point of a cone scale; convexity of tympanic membrane at point of attachment of manubrium mallei; beak or older part of bivalve shell; a prothoracic projection in certain insects.

umbonal (üm'bōnāl) *a.* [L. *umbo*, shield-boss.] *Pert.* an umbo.

umbonate (üm'bōnāt) *a.* [L. *umbo*, shield-boss.] Having a conical or rounded protuberance.

umbones,—*plu.* of umbo.

umbraculiferous (ümbrāk'ülif'ērūs) *a.* [L. *umbraculum*, sun-shade.] Bearing an umbrella-like organ or structure.

umbraculiform (ümbrāk'ülifōrm) *a.* [L. *umbraculum*, sun-shade; *forma*, shape.] Shaped like an expanded umbrella.

umbraculum (ümbrāk'ülüm) *n.* [L. *umbraculum*, sun-shade.] Any umbrella-like structure; pigmented fringe of iris, in certain ungulates; pupillary appendage, in amphibians.

umbraticolous (üm'brätík'ölūs) *a.* [L. *umbraticola*, one who likes the shade.] Growing in a shaded habitat; skiophilous.

umbrella (ümbrēl'ä) *n.* [L. *umbella*, sun-shade.] The contractile disc

of a jelly-fish; web between arms of certain Octopoda.

uncate (üng'kāt) *a.* [L. *uncus*, hook.] Hooked; hamate.

unciferous (ünsí'f'ērūs) *a.* [L. *uncus*, hook; *ferre*, to carry.] Bearing hooks or hook-like processes.

unciform (ün'sifōrm) *a.* [L. *uncus*, hook; *forma*, shape.] Shaped like a hook or barb; *appl.* process of ethmoid bone. *n.* Unciform bone or os hamatum or uncinatum of wrist.

uncinate (ün'sínāt) *a.* [L. *uncinus*, hook.] Unciform; hook-like; *appl.* fasciculus associating temporal and frontal lobes of brain; *appl.* process, of ribs of birds; process of ethmoid, of head of pancreas; *appl.* decurrent lamellae of agarics.

uncinus (ünsí'nūs) *n.* [L. *uncinus*, hook.] Small hooked, or hook-like, structure; a crotchet; one of small hooks found on segments of many worms; a hook-like structure found in certain infusorians; a marginal tooth of gastropods.

unconditioned,—*appl.* inborn reflex, *opp.* conditioned or acquired reflex.

uncus (üng'kūs) *n.* [L. *uncus*, hook.] Hook-shaped anterior extremity of hippocampal gyrus; hooked head of malleus of rotifers; hook-like or bifid process on dorsal portion of ninth abdominal segment of male Lepidoptera; uncinate hair.

undate (ün'dāt) *a.* [L. *undare*, to rise in waves.] Wavy; undose; undulating.

under-wing,—one of posterior wings of any insect.

undose (ün'dōs) *a.* [L. *undosus*, billowy.] Having undulating and nearly parallel depressions which run into one another and resemble ripple-marks; undate.

undulating membrane,—a membrane formed by fusion of cilia, for wafting food to the mouth in ciliates; a protoplasmic membrane between body and part of flagellum in flagellates.

unequally pinnate,—odd pinnate, imparipinnate, pinnate with single terminal leaflet.

ungual (ũng'gwāl) *a.* [L. *unguis*, nail.] *Pert.* or having a nail or claw; *appl.* phalanges bearing claws or nails.

unguicorn,—*dertrotheca, q.v.*

unguiculate (ũnggwik'ulāt) *a.* [L. *unguiculus*, little nail.] Clawed; *appl.* petals with narrowed stalk-like portion below.

unguis (ũng'gwīs) *n.* [L. *unguis*, claw.] A nail or claw; narrow stalk-like portion of some petals; a chitinous hook on foot of insect; distal joint, the crochet or fang, of arachnid chelicerae; lacrimal bone; the calcar avis, *q.v.*

unguitractor (ũng'witrāk'tōr) *n.* [L. *unguis*, claw; *tractus*, pull.] A median plate of pretarsus for attachment of retractor or flexor muscle of claw, in insects.

ungula (ũng'gūlā) *n.* [L. *ungula*, hoof.] Hoof; unguis of petal.

ungulate (ũng'gūlāt) *a.* [L. *ungula*, hoof.] Hoofed; hoof-like.

unguligrade (ũng'gūligrād') *a.* [L. *ungula*, hoof; *gradus*, step.] Walking upon hoofs.

uniascal (ũ'nīās'kāl) *a.* [L. *unus*, one; Gk. *askos*, bag.] Containing a single ascus; *appl.* locules.

uniaxial (ũ'nīāk'siāl) *a.* [L. *unus*, one; *axis*, axis.] With one axis; monaxial.

unibranchiate (ũ'nībrāng'kiāt) *a.* [L. *unus*, one; Gk. *branchia*, gills.] Having one gill.

unicapsular (ũ'nīkăp'sulār) *a.* [L. *unus*, one; *capsula*, small case.] Having only one capsule.

unicell (ũ'nīsēl') *n.* [L. *unus*, one; *cellula*, cell.] A unicellular organism; protophyton, or protozoon.

unicellular (ũ'nīsēl'ulār) *a.* [L. *unus*, one; *cellula*, cell.] Having only one cell, or consisting of one cell.

uniciliate (ũ'nīsīl'iāt) *a.* [L. *unus*, one; *cilium*, eyelash.] Having one cilium or flagellum.

unicorn (ũ'nīkōrn) *a.* [L. *unus*, one; *cornu*, horn.] Having a single horn-like spine; *appl.* shells.

unicostate (ũ'nīkōs'tāt) *a.* [L. *unus*, one; *costa*, rib.] Having a single prominent mid-rib, as certain leaves.

unicotyledonous (ũ'nīkōtilē'dōnūs) *a.* [L. *unus*, one; Gk. *kotyle*, cup.] Having a single cotyledon; monocotyledonous.

unicuspid (ũ'nīkūs'pīd) *a.* [L. *unus*, one; *cuspis*, point of spear.] Having one tapering point, as a tooth.

unidactyl (ũ'nīdāk'tīl) *a.* [L. *unus*, one; Gk. *daktylos*, finger.] Having one digit only; monodactylous.

uniembryonate (ũ'nīēm'brīōnāt) *a.* [L. *unus*, one; Gk. *embryon*, foetus.] Having one embryo only.

unifacial (ũ'nīfā'shāl) *a.* [L. *unus*, one; *facies*, face.] Having one face or chief surface.

unifactorial (ũ'nīfāktō'riāl) *a.* [L. *unus*, one; *facere*, to make.] *Pert.* or controlled by a single gene; monogenic.

uniflagellate (ũ'nīflāj'ēlāt) *a.* [L. *unus*, one; *flagellum*, whip.] Having only one flagellum.

uniflorous (ũ'nīflō'rūs) *a.* [L. *unus*, one; *flos*, flower.] Bearing only one flower.

unifoliate (ũ'nīfō'liāt) *a.* [L. *unus*, one; *folium*, leaf.] With one leaf.

unifoliolate (ũ'nīfō'liōlāt) *a.* [L. *unus*, one; *foliolum*, *dim.* of *folium*, leaf.] Having one leaflet only.

uniforate (ũnīf'ōrāt) *a.* [L. *unus*, one; *foratus*, pierced.] Having only one opening.

unigeminal (ũ'nījēm'ināl) *a.* [L. *unus*, one; *geminus*, twin-born.] *Appl.* arrangement of pore-pairs in one row, in ambulacra of some echinoids.

unigenesis,—monogenesis.

unihumoral (ũ'nīhū'mōrāl) *a.* [L. *unus*, one; *humor*, fluid.] Activated by only one neurohumor, *appl.* certain chromatophores.

unijugate (ũ'nījōog'āt) *a.* [L. *unus*, one; *jugum*, yoke.] *Appl.* pinnate leaf having one pair of leaflets.

unilabiate (ũ'nīlā'biāt) *a.* [L. *unus*, one; *labium*, lip.] With one lip or labium.

unilacunar (ũ'nīlākū'nār) *a.* [L. *unus*, one; *lacuna*, cavity.] With one lacuna; having one leaf-gap, *appl.* nodes.

unilaminate (ū'nīlām'īnāt) *a.* [L. *unus*, one; *lamina*, layer.] Having one layer only; *appl.* tissues.

unilateral (ū'nīlāt'ērāl) *a.* [L. *unus*, one; *latus*, side.] Arranged on one side only.

unilocular (ū'nīlōk'ulār) *a.* [L. *unus*, one; *loculus*, compartment.] One-celled; having one compartment only; *appl.* ovaries; *appl.* Foraminifera.

unimucronate (ū'nīmū'krōnāt) *a.* [L. *unus*, one; *mucro*, sharp point.] Having a single sharp point or tip; *appl.* leaves, etc.

uninucleate (ū'nīnū'klēāt) *a.* [L. *unus*, one; *nucleus*, nucleus.] Having one nucleus; uninuclear.

uniovular (ūniō'vulār) *a.* [L. *unus*, one; *ovum*, egg.] *Pert.* a single ovum; monozygotic; *appl.* twinning.

uniparous (ūnīp'ārūs) *a.* [L. *unus*, one; *parere*, to beget.] Producing one offspring at a birth; having a cymose inflorescence with one axis at each branching.

unipennate (ū'nīpēn'āt) *a.* [L. *unus*, one; *penna*, feather.] *Appl.* muscle having its tendon of insertion extending along one side.

unipetalous (ū'nīpēt'ālūs) *a.* [L. *unus*, one; *Gk. petalon*, leaf.] Having one petal; monopetalous.

unipolar (ū'nīpō'lār) *a.* [L. *unus*, one; *polus*, pole.] Having one pole only; *appl.* some nerve-cells.

unipotent (ūnīp'ōtēt) *a.* [L. *unus*, one; *potens*, powerful.] *Appl.* cells which can develop into cells of one kind only; unipotential, *opp.* totipotent.

uniramous (ū'nīrāmūs) *a.* [L. *unus*, one; *ramus*, branch.] Having one branch; *appl.* crustacean appendage lacking an exopodite; *appl.* antennule.

unisepalous,—monosepalous.

uniseptate (ū'nīsēp'tāt) *a.* [L. *unus*, one; *septum*, hedge.] Having one septum or dividing partition.

uniserial (ūnīsē'riāl) *a.* [L. *unus*, one; *series*, rank.] Arranged in one row or series; *appl.* certain ascospores; *appl.* fins with radials

on one side of basalia; uniseriate, *appl.* medullary rays; *appl.* thecae of graptolites.

uniserrate (ū'nīsēr'āt) *a.* [L. *unus*, one; *serra*, saw.] Having only one row of serrations on edge.

uniserrulate (ū'nīsēr'ulāt) *a.* [L. *unus*, one; *serrula*, *dim.* of *serra*, saw.] Having one row of small serrations on edge.

unisetose (ū'nīsē'tōs) *a.* [L. *unus*, one; *seta*, bristle.] Bearing one bristle.

unisexual (ū'nīsēk'sūāl) *a.* [L. *unus*, one; *sexus*, sex.] Of one or other sex; distinctly male or female; diclinous; gonochoric.

unispiral (ū'nīspī'rāl) *a.* [L. *unus*, one; *spira*, coil.] Having one spiral only.

unistrate (ū'nīstrāt) *a.* [L. *unus*, one; *stratum*, layer.] Having only one layer; unistratose.

univalent (ūnīv'ālēt, ū'nīvāl'lēnt) *a.* [L. *unus*, one; *valere*, to be strong.] *Appl.* a single unpaired chromosome.

univalve (ū'nīvālv') *n.* [L. *unus*, one; *valvae*, folding doors.] A shell consisting of one piece or valve, as a gastropod shell.

universal donor,—person with blood of group O, or four, whose blood may be transfused into, or whose skin may be grafted on to, a member of any other group, without harmful reaction.

universal recipient,—person with blood of group AB, or one, into whom blood may be transfused from a member of any other group, without harmful reaction.

universal veil,—tissue enveloping pileus and stipe in angiocarpic Agaricales and Boletales, separated later from the pileus and forming the volva; velum universale.

univoltine (ū'nīvōl'tīn) *a.* [L. *unus*, one; *It. volta*, time.] Producing one brood in the season, as certain silkworms, coccids.

unpaired (ūn'pārd) *a.* [L. *un*, not; *par*, equal.] Situated in median line of body, consequently single.

urachus (ū'rākūs) *n.* [Gk. *ouron*, urine; *echein*, to hold.] The median umbilical ligament; fibrous cord extending from apex of bladder to umbilicus.

urate (ū'rāt) *n.* [Gk. *ouron*, urine.] A salt of uric acid; *appl.* excretory cells in fat-body of insects lacking Malpighian tubules.

urceolate (ūr'sēōlāt) *a.* [L. *urceolus*, small pitcher.] Urn- or pitcher-shaped; *appl.* apothecium; *appl.* calyx or corolla; *appl.* shells of various protozoa; having an urceolus.

urceolus (ürsē'ölūs) *n.* [L. *urceolus*, small pitcher.] Any pitcher-shaped structure; the external tube of certain rotifers.

urea (ū'rēā) *n.* [Gk. *ouron*, urine.] Carbamide, a crystalline excretory substance, chief organic constituent of urine; $\text{CO}(\text{NH}_2)_2$.

uredia,—*plu.* of uredium.

uredial (ūrē'diāl) *a.* [L. *uredo*, blight.] *Appl.* or *pert.* the summer stage of rust fungi; uredinial.

urediniospore,—uredospore.

uredinium (ūrēdīn'ium) *n.* [L. *uredo*, blight.] In rusts, the sorus bearing uredospores.

urediospore,—uredospore.

uredium (ūrē'diūm) *n.* [L. *uredo*, blight.] A sorus bearing summer-spores in rust fungi; uredinium.

uredo (ūrē'dō) *n.* [L. *uredo*, blight.] Summer stage of rust fungi.

uredobuds,—uredospores.

uredogonidium,—uredospore.

uredosorus (ūrē'dōsō'rūs) *n.* [L. *uredo*, blight; Gk. *soros*, heap.] A group of developing uredospores.

uredospores (ūrē'dōspōrz) *n. plu.* [L. *uredo*, blight; Gk. *sporos*, seed.] Reddish summer-spores borne on sporophore of rust fungi; uredobuds.

ureotelic (ūr'rēōtēl'ik) *a.* [Gk. *ouron*, urine; *telos*, end.] Excreting nitrogen as urea; *appl.* mammals; *cf.* uricotelic.

ureter (ūrē'tēr) *n.* [Gk. *oureter*, ureter.] Duct conveying urine from kidney to bladder or cloaca.

urethra (ūrē'thrā) *n.* [Gk. *ourethra*, from *ouron*, urine.] Duct leading off urine from bladder, and in male conveying semen in addition.

uric acid,—end-product of nucleic acid katabolism in mammals, main nitrogenous constituent of urine in reptiles and birds; trioxypurine, $\text{C}_5\text{H}_4\text{N}_4\text{O}_3$.

uricase,—an enzyme of kidney and liver, also of some fungi, causing oxidation of uric acid to allantoin and carbon dioxide; uric acid oxidase.

uricolytic (ūr'ikōlīt'ik) *a.* [Gk. *ouron*, urine; *lyein*, to loose.] Decomposing uric acid; *appl.* index, the ratio between nitrogen excreted as allantoin to that present in urine as uric acid.

uricotelic (ūr'ikōtēl'ik) *a.* [Gk. *ouron*, urine; *telos*, end.] Excreting nitrogen as uric acid; *appl.* birds; *cf.* ureotelic.

urinary (ūr'inäri) *a.* [L. *urina*, urine.] *Pert.* urine; *appl.* organs including kidneys, ureters, bladder, and urethra.

urine (ūr'in) *n.* [L. *urina*, urine.] A fluid excretion from kidneys in mammals, a solid or semisolid excretion in birds and reptiles.

uriniparous (ūr'rinip'ārūs) *a.* [L. *urina*, urine; *parere*, to bring forth.] Urine-producing; *appl.* tubules in cortical portion of kidney.

urinogenital (ūr'rinōjēn'itāl) *a.* [L. *urina*, urine; *gignere*, to beget.] *Pert.* urinary and genital systems.

urinogenital ridge,—a paired ridge from which urinary and genital systems are developed.

urinogenital sinus,—bladder or pouch in connection with urinary and genital systems in many animals.

urite (ūr'it) *n.* [Gk. *oura*, tail.] An abdominal segment in arthropods; anal cirrus in polychaetes.

urn (ūr'n) *n.* [L. *urna*, jar.] An urn-shaped structure; the base of a pyxis in lichens; theca or capsule of mosses; one of the ciliate bodies floating in coelomic fluid of annulates.

urobilin (ū'rōbī'līn) *n.* [Gk. *ouron*, urine; L. *bilis*, bile.] A brown pigment of urine; stercobilin; $C_{33}H_{44}O_6N_4$.

urocardiac ossicle,—a short stout bar forming part of gastric mill in certain Crustacea.

urochord (ū'rōkōrd) *n.* [Gk. *oura*, tail; *chorde*, cord.] The notochord when confined to caudal region, as in tunicates.

urochrome (ū'rōkrōm) *n.* [Gk. *ouron*, urine; *chroma*, colour.] A yellowish pigment to which ordinary colour of urine is due.

urocoel (ū'rōsēl) *n.* [Gk. *ouron*, urine; *koilos*, hollow.] An excretory organ in Mollusca.

urocyst (ū'rōsist) *n.* [Gk. *ouron*, urine; *kystis*, bladder.] The urinary bladder; vesica urinaria.

urodaeum (ū'rōdē'ūm) *n.* [Gk. *ouron*, urine; *odaios*, way.] The part or chamber of cloaca into which ureters and genital ducts open.

urodelous (ū'rōdē'lūs) *a.* [Gk. *oura*, tail; *delos*, visible.] With persistent tail.

urogastric (ū'rōgās'trīk) *a.* [Gk. *oura*, tail; *gaster*, stomach.] *Pert.* the posterior portion of the gastric region in certain crustaceans.

urogenital,—urinogenital, *q.v.*

urohyal (ū'rōhiāl) *n.* [Gk. *oura*, tail; *hyoeides*, Y-shaped.] A median bony element in hyoid arch below hypohyals; basibranchiostegal.

uromere (ū'rōmēr) *n.* [Gk. *oura*, tail; *meros*, part.] An abdominal segment in Arthropoda.

uromorphic (ū'rōmōr'fik) *a.* [Gk. *oura*, tail; *morphe*, shape.] Like a tail; uromorphous.

uroneme (ū'rōnēm) *n.* [Gk. *oura*, tail; *nema*, thread.] A tail-like structure of some ciliate Protozoa.

uropatagium (ū'rōpātāj'ium) *n.* [Gk. *oura*, tail; L. *patagium*, border.] Membrane stretching from one femur to the other in bats; podical plate of insects.

urophan (ū'rōfān) *n.* [Gk. *ouron*, urine; *phanai*, to show.] Any ingested substance found chemi-

cally unchanged in urine. *a.* Uropharic.

uropod (ū'rōpōd) *n.* [Gk. *oura*, tail; *pous*, foot.] An abdominal appendage in Crustacea.

uropore (ū'rōpōr) *n.* [Gk. *ouron*, urine; *poros*, passage.] Opening of excretory duct in Acarina.

uroporphyrin (ū'rōpōr'firin) *n.* [Gk. *ouron*, urine; *porphyrā*, purple.] A brownish-red iron-free product of haem metabolism, a pigment of urine.

uropygial (ū'rōpīj'īāl) *a.* [Gk. *orros*, end of os sacrum; *pyge*, rump.] *Pert.* uropygium; *appl.* oil gland.

uropygium (ū'rōpīj'ium) *n.* [Gk. *orros*, end of os sacrum; *pyge*, rump.] The hump at end of bird's trunk, containing caudal vertebrae, and supporting tail feathers; also uropyge.

uropyloric (ū'rōpīlōr'ik) *a.* [Gk. *oura*, tail; *pyle*, gate.] *Pert.* posterior portion of crustacean stomach.

urorectal (ū'rōrēk'tāl) *a.* [L. *urina*, urine; *rectus*, straight.] *Appl.* embryonic septum, which ultimately divides intestine into anal and urinogenital parts.

urorubin (ū'rōroob'īn) *n.* [Gk. *ouron*, urine; L. *ruber*, red.] The red pigment of urine.

urosacral (ū'rōsāk'rāl) *a.* [Gk. *oura*, tail; *sacrum*, sacred.] *Pert.* caudal and sacral regions of the vertebral column.

urosome (ū'rōsōm) *n.* [Gk. *oura*, tail; *soma*, body.] Tail region of fish; abdomen of arthropod.

urostege (ū'rōstēj) *n.* [Gk. *oura*, tail; *stege*, roof.] Ventral tail-plate of serpent; urostegite.

urosteon (ū'rōstēōn) *n.* [Gk. *oura*, tail; *osteon*, bone.] Median ossification on the back portion of the keel-bearing part of the sternum in birds.

urosternite (ū'rōstēr'nīt) *n.* [Gk. *oura*, tail; *sternon*, breast.] Ventral plate of arthropodan abdominal segment.

urosthenic (ū'rōsthēn'ik) *a.* [Gk. *oura*, tail; *sthenos*, strength.]

Having tail strongly developed for propulsion.

urostyle (ū'röstil) *n.* [Gk. *oura*, tail; *stylos*, pillar.] An unsegmented bone, posterior part of vertebral column of anurous amphibians; hypural bone in fishes.

uroxanthin (ū'rözän'thîn) *n.* [Gk. *ouron*, urine; *xanthos*, yellow.] A yellow pigment of normal urine.

urticant (ūr'tikānt) *a.* [L. *urtica*, nettle.] Nettling; stinging; *appl.* thread-cells.

urticarial (ürtikā'riāl) *a.* L. *urtica*, nettle.] Nettling; urticant; *appl.* hairs, as of some caterpillars.

urticator (ūr'tikātör) *n.* [L. *urtica*, nettle.] A nettling or stinging cell; a nematocyst.

use inheritance,—transmission of acquired characteristics.

uterine (ūt'ērīn) *a.* [L. *uterus*, womb.] *Pert.* uterus; *appl.* artery, vein, plexus, glands, etc. of mammals.

uterine bell,—muscular bell-like structure in female of certain thread-worms, communicating with coelom and uterus.

uterine crypts,—depressions in uterine mucosa, for accommodation of chorionic villi.

uteroabdominal (ūt'ēröäbdöm'ināl) *a.* [L. *uterus*, womb; *abdomen*, stomach.] *Pert.* uterus and abdominal region.

uterosacral (ūt'ērösä'kräl) *a.* [L. *uterus*, womb; *sacrum*, sacred.] *Appl.* two ligaments of sacro-genital folds attached to sacrum.

utero vaginal (ūt'ērövāj'ināl, -vājī'nāl) *a.* [L. *uterus*, womb; *vagina*, vagina.] *Pert.* uterus and vagina.

utero vesical (ūt'ērövä's'ikäl) *a.* [L. *uterus*, womb; *vesicula*, vesicle.] *Pert.* uterus and bladder.

uterus (ūt'ērüs) *n.* [L. *uterus*, womb.] The organ in female mammals in which the embryo develops and is nourished before birth; an enlarged portion of oviduct modified to serve as a place for development of young or of eggs.

uterus masculinus,—median sac, vestigial Müllerian duct in male, attached to dorsal surface of urino-genital canal; utriculus prostaticus, vesica prostatica, sinus pocularis, Weber's organ.

utricle (üt'rikul) *n.* [L. *utriculus*, small bag.] Utriculus; former term for ascus; bladder-like pericarp of certain fungi; an air-bladder of aquatic plants; membranous indehiscent one-celled fruit; protoplasm enveloping a vacuole; membranous sac of ear-labyrinth; uterus masculinus.

utricular (üt'rik'ülär) *a.* [L. *utriculus*, small bag.] Containing vessels like small bags; *appl.* modification of laticiferous tissue.

utriculiform (üt'rik'üliförm) *a.* [L. *utriculus*, small bag; *forma*, shape.] Shaped like a utricle or small bladder.

utriculus,—utricle, *q.v.*

utriform (üt'triförm) *a.* [L. *uter*, leather bottle; *forma*, shape.] Bladder-shaped, with a shallow constriction.

uva (ü'vä) *n.* [L. *uva*, grape.] Pulpy indehiscent fruit with central placenta, such as the grape.

uvea (ü'vää) *n.* [L. *uva*, grape.] Pigmented epithelium covering posterior surface of iris; pars iridica retinae.

uvette (üvët') *n.* [F. from L. *uva*, grape.] The glandular junction of the two demanian vessels whence duct passes to exterior.

uvula (ü'vülä) *n.* [L. *dim* of L. *uva*, grape.] Part of inferior vermis of cerebellum; conical pendulous process from soft palate; small elevation in mucous membrane of urinary bladder, caused by prostate.

V

vaccine (väk'sën, -in) *n.* [L. *vacca*, cow.] An attenuated living culture of a pathogenic organism, as those used against smallpox and other diseases.

vacuolar (vāk'ūōlār) *a.* [L. *vacuus*, empty.] *Pert.* or like a vacuole.

vacuolated (vāk'ūōlā'tēd) *a.* [L. *vacuus*, empty.] Containing vacuoles.

vacuole (vāk'ūōl) *n.* [L. *vacuus*, empty.] One of spaces in cell protoplasm containing air, sap, or partially digested food.

vacuolisation (vāk'ūōlfzā'shūn) *n.* [L. *vacuus*, empty.] The formation of vacuoles; appearance or formation of drops of clear fluid in growing or ageing cells; vacuolation.

vacuome (vāk'ūōm) *n.* [L. *vacuus*, empty.] The vacuolar system of a single cell.

vagal (vā'gāl) *a.* [L. *vagus*, wandering.] *Pert.* the *vagus*.

vagile (vāj'īl) *a.* [L. *vagus*, wandering.] Freely motile; able to migrate.

vagina (vāj'īnā) *n.* [L. *vagina*, sheath.] A sheath or sheath-like tube; expanded sheath-like portion of leaf-base; canal leading from uterus to external opening of genital canal.

vaginae mucosae,—mucous sheaths lessening friction of tendons gliding in fibro-osseous canals, as in hand or foot.

vaginal (vāj'īnāl, vāj'īnāl) *a.* [L. *vagina*, sheath.] *Pert.* or supplying vagina; *appl.* arteries, nerves, etc.

vaginal process,—projecting lamina on inferior surface of petrous portion of temporal; a lamina on sphenoid.

vaginate (vāj'īnāt) *a.* [L. *vagina*, sheath.] Invested by a sheath.

vaginervose (vāj'īnēr'vōs) *a.* [L. *vagus*, wandering; *nervus*, sinew.] With irregularly-arranged veins.

vaginiculous (vāj'īnīk'ōlūs) *a.* [L. *vagina*, sheath; *colere*, to inhabit.] *Appl.* certain infusorians which build and inhabit sheaths or cases.

vaginiferous (vāj'īnīf'ērūs) *a.* [L. *vagina*, sheath; *ferre*, to carry.] Vaginate; invested by a sheath.

vaginipennate (vāj'īnīpēn'āt) *a.* [L. *vagina*, sheath; *penna*, feather.] Having wings protected by a sheath.

vaginula (vāj'īn'ūlā) *n.* [L. *vaginula*,

dim. of *vagina*, sheath.] A small sheath; sheath surrounding basal portion of sporogonium in mosses.

vagus (vā'gūs) *n.* [L. *vagus*, wandering.] The pneumogastric or tenth cranial nerve; visceral accessory nervous system in insects.

vallate (vāl'āt) *a.* [L. *vallatus*, surrounded by a rampart.] With a rim surrounding a depression; *appl.* papillae with taste-buds on back part of tongue; circumvallate.

vallecula (vāl'ēk'ūlā) *n.* [L. *dim.* of L. *vallis*, valley.] A depression or groove.

vallecular canal,—one of canals in cortical tissue of stem of horse-tails.

valleculate (vāl'ēk'ūlāt) *a.* [L. *dim.* of L. *vallis*, valley.] Grooved.

Valsalva,—see sinuses of Valsalva.

valval (vāl'vāl) *a.* [L. *valva*, fold.] *Appl.* view of diatom when one whole valve is next the observer; valvar.

valvate (vāl'vāt) *a.* [L. *valva*, fold.] Hinged at margin only; meeting at edges; opening by or furnished with valves; *pert.* valves.

valve (vāl'v) *n.* [L. *valva*, fold.] Any of various structures which permit flow in one direction, but are capable of closing tube or vessel and preventing backward flow; any of pieces formed by a capsule on dehiscence; lid-like structure of certain anthers; flowering glume or lemma; one of pieces forming shell of diatom; any of pieces which form shell in certain molluscs, barnacles, etc.; one of pieces forming sheath of ovipositor or of clasper in certain insects.

valve of Thebesius [*A. C. Thebesius*, German anatomist]. Valve of the coronary sinus in right atrium; thebesian valve, valvula sinus coronarii cordis.

valve of Viussens [*R. Viussens*, French anatomist]. Thin layer of white matter extending between superior peduncles of cerebellum; anterior medullary velum; Willis' valve.

valvelet (vǎlv'lēt), **valvula** (vǎl'vülä) *n.* [L. *valvula*, *dim.* of *valva*, fold.] A small fold or valve.

valvifer (vǎl'vifer) *n.* [L. *valva*, fold; *ferre*, to bear.] One of the sclerites or coxites at base of valves of ovipositor in certain insects.

valvulae conniventes, — circular, spiral, or bifurcated folds of mucous membrane found in alimentary canal from duodenum to ileum, affording increased area for secretion and absorption; Kerckring's valves, *plicae circulares*.

valvular (vǎl'vülär) *a.* [L. *dim.* of *valva*, fold.] *Pert.*, or like, a valve or valves; *appl.* dehiscence of certain capsules and anthers.

valvule (vǎl'vül) *n.* [L. *dim.* of *valva*, fold.] A valvula; upper palea of grasses.

vane (vān) *n.* [A.S. *fana*, small flag.] The vexillum or web of a feather, consisting of barbs, etc.

vannal (vǎn'äl) *a.* [L. *vannus*, fan.] *Pert.* vannus; *appl.* veins.

vannus (vǎn'ūs) *n.* [L. *vannus*, fan.] Fan-like posterior lobe of hind wing in some insects; anal lobe.

variant (vǎ'riänt) *n.* [L. *varians*, changing.] An individual or species deviating in some character or characters from type.

variate (vǎ'riät) *n.* [L. *variare*, to change.] The variable quantity in variation; a character variable in quality or magnitude.

variation (vǎ'riä'shün) *n.* [L. *variare*, to change.] Divergence from type in certain characteristics.

varicellate (vǎ'risel'ät) *a.* [L. *varix*, dilatation.] *Appl.* shells with small or indistinct ridges.

varices (vǎ'risēz) *n. plu.* [L. *varix*, dilatation.] Prominent ridges across whorls of various univalve shells, showing previous position of outer lip.

variole (vǎ'riöl) *n.* [L. *varius*, various.] A small pit-like marking found on various parts in insects; a foveola.

varix, — *sing.* of varices.

vas (väs) *n.*, **vasa** (vǎ'sä) *plu.* [L.

vas, vessel.] A small vessel, duct, or canal, blind tube.

vasa afferentia, — lymphatic vessels entering lymph nodes.

vasa deferentia, — ducts leading from testes to penis, exterior, urino-genital canal, or cloaca; deferent ducts.

vasa efferentia, — ductules leading from testis to vas deferens; lymphatic vessels leading from lymph nodes.

vasa vasorum, — nutrient vessels for the larger arteries and veins.

vasal (vǎ'säl) *a.* [L. *vas*, vessel.] *Pert.* or connected with a vessel.

vascular (väs'külär) *a.* [L. *vasculum*, small vessel.] *Pert.*, consisting of, or containing vessels adapted for transmission or circulation of fluid.

vascular areas, — scattered areas developed between endoderm and mesoderm of yolk-sac, beginnings of primitive blood-vessels.

vascular bundle, — a group of special cells consisting of two parts, xylem or wood portion and phloem or bast portion; many have in addition a thin strip of cambium separating the two parts.

vascular cylinder, — stele.

vascular tissue, — specially modified plant-cells, usually consisting of either tracheal or sieve cells, for circulation of sap.

vascular tunic, — choroid, ciliary body, and iris.

vasculum (väs'külüm) *n.* [L. *vasculum*, small vessel.] A pitcher-shaped leaf or ascidium; a small blood-vessel.

vasifactive (väs'ifäk'tiv) *a.* [L. *vas*, vessel; *facere*, to make.] Producing new blood-vessels.

vasiform (väs'iförm) *a.* [L. *vas*, vessel; *forma*, shape.] Functioning as or resembling a duct; vascular.

vasoconstrictor (väs'ökönstriktör) *a.* [L. *vas*, vessel; *constringere*, to draw tight.] Causing constriction of blood vessels.

vasodentine (väs'ödén'tin) *n.* [L. *vas*, vessel; *dens*, tooth.] A variety of dentine permeated by blood-vessels.

vasodilatin (vās'ōdīlā'tin) *n.* [L. *vas*, vessel; *dilatatus*, separated.] Product of protein disintegration corresponding in properties with histamine.

vasodilator (vās'ōdīlā'tōr) *a.* [L. *vas*, vessel; *dilatatus*, separated.] Relaxing or enlarging the vessels.

vasoformative,—vasifactive, *q.v.*

vasoganglion (vās'ōgāng'gliōn) *n.* [L. *vas*, vessel; Gk. *ganglion*, little tumour.] A compact plexus of blood-vessels or rete mirabile representing reduced hyoidean gill, as in certain fishes.

vasohypertonic, — vasoconstrictor, *q.v.*

vasohypotonic,—vasodilator, *q.v.*

vasoinhibitory,—vasodilator, *q.v.*

vasomotion (vās'ōmō'shūn) *n.* [L. *vas*, vessel; *movere*, to move.] A change in calibre of blood-vessel.

vasomotor (vās'ōmō'tōr) *a.* [L. *vas*, vessel; *movere*, to move.] *Appl.* nerves supplying muscles in wall of blood-vessels and regulating calibre of blood-vessels, through containing both vasoconstrictor and vasodilator fibres.

vasopressin (vās'ōprēs'in) *n.* [L. *vas*, vessel; *pressus*, pressure.] A hormone of posterior lobe of pituitary gland which stimulates plain muscle, constricting arteries and raising blood pressure; β hypophamine; pitressin.

vastus (vās'tūs) *n.* [L. *vastus*, immense.] A division of quadriceps muscle of thigh.

Vater's ampulla [*A. Vater*, German anatomist]. Dilation of the united common bile-duct and pancreatic duct.

Vater's corpuscles,—Pacinian corpuscles, *q.v.*

V - chromosomes, — chromosomes with two arms; mediocentric chromosomes.

vector (vĕk'tōr) *n.* [L. *vector*, bearer.] A carrier, as many invertebrate hosts, of pathogenic organisms; any agent transferring a parasite to a host.

vegetal pole,—that side of a blastula

at which megameres collect; the lower more slowly segmenting portion of a telolecithal egg, *opp.* animal pole.

vegetative (vēj'ētā'tiv) *a.* [L. *vegetare*, to enliven.] *Appl.* stage of growth in plants, *opp.* reproductive period; assimilative, *appl.* fungi; *appl.* foliage shoots, *opp.* flower or reproductive shoots; *appl.* reproduction by bud-formation or other asexual method in plants and animals; *appl.* nervous system, the autonomic nervous system.

vegetative cone,—the apical point.

vegetative nucleus, — macronucleus, meganucleus, trophic nucleus, trophonucleus; pollen tube nucleus.

vegetative pole,—vegetal pole, *q.v.*

veil (vāl) *n.* [L. *velum*, covering.] Velum; calyptra; indusium.

veins (vānz) *n. plu.* [L. *vena*, vein.] Branched vessels which convey blood to heart; ribs or nervures of insect wing; ridges between lamellae of agarics; branching ribs or strands of vascular tissue of leaf.

velamen (vēlā'mĕn) *n.* [L. *velamen*, covering.] A membrane; sheath of tracheids at apex of aerial roots of orchids; a specialised moisture-absorbing tissue; velamentum.

velaminous (vēlām'inūs) *a.* [L. *velamen*, covering.] Having a velamen; *appl.* roots.

velangiocarpy (vēlān'jiōkārpī) *n.* [L. *velum*, covering; Gk. *anggeion*, vessel; *karpōs*, fruit.] The enclosure of a fungal fruit-body by an early-formed veil or velum.

velar (vē'lār) *a.* [L. *velum*, covering.] *Pert.* or situated near a velum.

velarium (vēlā'riūm) *n.* [L. *velarium*, awning.] Velum of certain Cubomedusae, which differs from a true velum in containing endodermic canals; margin of umbrella, including tentacles, in Scyphozoa.

velate (vē'lāt) *a.* [L. *velum*, covering.] Veiled; covered by a velum.

veliger (vē'lījĕr) *n.* [L. *velum*, covering; *gerere*, to carry.] Second stage in larval life of certain molluscs when head bears a velum.

vellus (vē'lūs) *n.* [L. *vellus*, fleece.] The stipe of certain fungi; hair replacing primary hair or lanugo.

velum (vē'lūm) *n.* [L. *velum*, covering.] A membrane or structure similar to a veil; in Hydromedusae and certain jelly-fishes, the annular membrane projecting inwards from margin of bell; membrane in connection with buccal cavity in lancelet; flap-like structure for closing off choanae from mouth cavity in Crocodilia; membrane-like structure bordering oral cavity of certain ciliates; ciliated swimming organ of veliger larva; mass of tissue stretching from stipe to pileus in certain thallophytes; membrane partly covering opening of fovea in Isoëtes.

velutinous (vēlū'tinūs) *a.* [It. *velluto*, velvet.] Velvety; covered with very fine, dense, short upright hairs.

velvet (vē'lvēt) *n.* [M.E. *veluet*, velvet.] Soft vascular skin which covers antlers of deer during growth.

vena (vē'nā) *n.* [L. *vena*, vein.] A vein, or vessel by which blood is carried from body to heart.

venae,—*plu.* of vena.

venation (vēnā'shūn) *n.* [L. *vena*, vein.] System or disposition of veins or nervures; nervation.

venin (vē'nin) *n.* [L. *venenum*, poison.] A toxic substance of snake venom.

veniplex (vē'nīplēks) *n.* [L. *vena*, vein; *plexus*, interwoven.] A plexus of veins.

venomosalivary (vē'nōmōsāl'ivārī) *a.* [L. *venenum*, poison; *salivare*, to salivate.] *Pert.* salivary glands of which the secretion is poisonous.

venomous (vē'nōmūs) *a.* [L. *venenum*, poison.] Having poison-glands; able to inflict a poisonous wound.

venose (vē'nōs) *a.* [L. *vena*, vein.] With many and prominent veins.

venous (vē'nūs) *a.* [L. *vena*, vein.] *Pert.* veins; *appl.* blood returning to heart after circulation in body.

vent (vēnt) *n.* [L. *findere*, to cleave.] The anus; cloacal or anal aperture in lower vertebrates; *appl.* feather: an under tail covert.

venter (vēn'tēr) *n.* [L. *venter*, belly.] The abdomen; lower abdominal surface; protuberance, as of muscle; smooth concave surface; swollen basal portion of archegonium.

ventrad (vēn'trād) *adv.* [L. *venter*, belly; *ad*, to.] Towards lower or abdominal surface, *opp.* dorsad.

ventral (vēn'trāl) *a.* [L. *venter*, belly.] *Pert.* or situated on lower or abdominal surface; *pert.* or designating that surface of a petal, etc., that faces centre or axis of flower; *appl.* lower surface of flattened ribbon-like thalli; *pert.* a venter.

ventrianal (vēn'triā'nāl) *a.* [L. *venter*, belly; *anus*, anus.] *Appl.* plate formed by fused ventral and anal sclerites, in certain Acarina.

ventricle (vēn'trikī) *n.* [L. *ventriculus*, *dim.* of *venter*, belly.] A cavity or chamber, as in heart or brain; *appl.* fusiform fossa of larynx; gizzard of birds; mid-gut or chylific ventricle of insects; ventriculus.

ventricose (vēn'trikōs) *a.* [L. *venter*, belly.] Swelling out in the middle, or unequally; *appl.* corolla, spores, stipe; *appl.* shells.

ventricular (vēn'trik'ulār) *a.* [L. *ventriculus*, belly.] *Pert.* a ventricle; *appl.* ligaments and folds of larynx; *appl.* septum and valves in heart.

ventriculus,—the stomach; a ventricle.

ventrodorsal (vēn'trōdōr'sāl) *a.* [L. *venter*, belly; *dorsum*, back.] Extending from ventral to dorsal surface.

ventrolateral (vēn'trōlāt'ērāl) *a.* [L. *venter*, belly; *latus*, side.] At side of ventral region; ventral and lateral.

venule (vēn'ūl) *n.* [L. *venula*, *dim.* of *vena*, vein.] Small vein of leaf or of insect wing; small vessel conducting venous blood from capillaries to vein.

venulose (vēn'ulōs) *a.* [L. *venula*, veinlet.] Having numerous small veins.

vermian (vēr'miān) *a.* [L. *vermis*, worm.] Worm-like; *pert.* *vermis*.

vermicular (vērmīk'ulār) *a.* [*Dim.* of L. *vermis*, worm.] Resembling a worm in appearance or movement.

vermiculate (vērmīk'ulāt) *a.* [*Dim.* of L. *vermis*, worm.] Marked with numerous sinuate fine lines or bands of colour or by irregular depressed lines.

vermiculation (vēr'mīkulā'shūn) *n.* [*Dim.* of L. *vermis*, worm.] Worm-like or peristaltic movement; fine wavy markings.

vermicule (vēr'mīkul) *n.* [*Dim.* of L. *vermis*, worm.] Motile or ookinete stage of some Sporozoa; a small worm-like structure.

vermiform (vēr'mifōrm) *a.* [L. *vermis*, worm; *forma*, shape.] Shaped like a worm; *appl.* certain Protista and numerous structures, especially appendix; *appl.* body, a scolecite; *appl.* cells, plasmatocyte-like blood-cells in insects.

vermis (vēr'mīs) *n.* [L. *vermis*, worm.] Annulated median portion of cerebellum; central portion of cerebellum in birds and reptiles.

vernacular (vērnāk'ulār) *n.* [L. *vernaculus*, indigenous.] The local or native name of a plant or animal, *opp.* Latin or scientific name.

vernalin (vērnā'lin) *n.* [L. *vernalis*, of the spring.] A substance, or hormone, believed to control temperature effect in vernalisation, and possibly concerned in the formation of florigen.

vernalisation (vēr'nālīzā'shūn) *n.* [L. *vernalis*, of the spring.] A method of inducing the plant embryo to complete part of its development independently of its rate of growth; theory of plant development based upon sequence of mutually independent phases; first developmental phase, preceding photostage, of annual and some perennial herbaceous plants; thermophase; jarovization.

vernalised (vēr'nālīzd) *a.* [L. *vernalis*, of the spring.] *Appl.* plant which has completed part of its development before sowing.

vernation (vērnā'shūn) *n.* [L. *vernatio*, sloughing.] The arrangement of leaves within a bud; *cf.* prefoliation.

vernicoise (vēr'nīkōs) *a.* [F. *vernis*, varnished.] Having a varnished appearance; glossy.

vernix caseosa,—shed flakes of epidermis mixed with sebaceous secretions gradually coating the skin during second half of human foetal life.

verruca (vērū'kā, -oo-) *n.* [L. *verruca*, wart.] A wart-like projection; a wart-like apothecium; one of small wart-like projections surrounding base of polyps in many Alcyonaria; one of the blister-like evaginations of body wall in some sea-anemones; a cuticular protuberance tufted with bristles, as in larval insects.

verruciform (vērū'sifōrm, -oo-) *a.* [L. *verruca*, wart; *forma*, shape.] Wart-shaped.

verrucose (vēr'ūkōs) *a.* [L. *verrucosus*, warty.] Covered with wart-like projections.

verruculose (vērū'kulōs) *a.* [L. *verrucula*, small wart.] Covered with minute wart-like excrescences.

versatile (vēr'sātil) *a.* [L. *versatilis*, turning around.] Swinging freely, *appl.* anthers; capable of turning backwards and forwards, *appl.* bird's toe.

versicoloured (vēr'sikūl'ērd) *a.* [L. *versicolor*, changing colour.] Variegated in colour; capable of changing colour.

Verson's glands,—ecdysial glands, *q.v.*

vertebra (vēr'tēbrā) *n.* [L. *vertebra*, turning joint.] Any of the bony or cartilaginous segments that make up the backbone; one of the ossicles in an ophiuroid arm.

vertebra prominens,—seventh cervical vertebra.

vertebral (vē'r'tēbrāl) *a.* [L. *vertebra*, *vertebra*.] *Pert.* spinal column; *appl.* various structures situated near or connected with spinal column, or with any structure likened to spinal column.

vertebrarterial canal,—canal formed by foramina in transverse processes of cervical vertebrae or between cervical rib and vertebra.

vertebrate (vē'r'tēbrāt) *a.* [L. *vertebra*, *vertebra*.] Having a backbone or spinal column.

vertebration (vē'r'tēbrā'shūn) *n.* [L. *vertebra*, *vertebra*.] Division into segments or parts resembling vertebrae.

vertebropelvic (vē'r'tēbrōpēl'vik) *a.* [L. *vertebra*, *vertebra*; *pelvis*, *basin*.] *Appl.* ligaments: the ilio-lumbar, sacrospinous, and sacrotuberous ligaments.

vertex (vē'r'tēks) *n.* [L. *vertex*, *top*.] Top of head; highest point of skull; region between compound eyes in insects.

vertical (vē'r'tikāl) *a.* [L. *vertex*, *top*.] Standing upright; lengthwise, in direction of axis; *pert.* vertex of head.

vertical margin,—limit between frons and occiput in Diptera.

verticil (vē'r'tisil) *n.* [L. *verticillus*, *dim.* of *vertex*, *whirl*.] An arrangement of flowers, inflorescences or other structures about the same point on the axis.

verticillaster (vē'r'tisilās'tēr) *n.* [L. *verticillus*, *small whorl*; *aster*, *star*.] A much condensed cyme with appearance of whorl, but in reality arising in axils of opposite leaves.

verticillate (vērtis'ilāt) *a.* [L. *verticillus*, *small whorl*.] Disposed in verticils; whorled; *Appl.* antennae whose joints are surrounded, at equal distances, by stiff hairs.

veruculate (vērūk'ulāt) *a.* [L. *veruculum*, *skewer*.] Rod-shaped and pointed.

verumontanum (vē'r'oomōntā'nūm) *n.* [L. *veru*, *spit*; *montanum*, *mountainous*.] Ridge on floor of urethra, with small elevation where

seminal ducts enter the colliculus seminalis; urethral crest.

vesica (vēs'ikā) *n.* [L. *vesica*, *bladder*.] Bladder.

vesica fellea,—gall-bladder.

vesica prostatica,—prostatic utricle, sinus pocularis, uterus masculinus, *q.v.*, or Weber's organ.

vesica urinaria,—urinary bladder.

vesical (vēs'ikāl) *a.* [L. *vesica*, *bladder*.] *Pert.* or in relation with bladder; *appl.* arteries, etc.

vesicle (vēs'ikl) *n.* [L. *vesicula*, *dim.* of *vesica*, *bladder*.] Small globular or bladder-like air space in tissues; small cavity or sac usually containing fluid; a hyphal swelling in mycorrhiza; hollow prominence on shell or coral; one of three primary cavities of brain.

vesicula (vēs'ik'ulā) *n.* [L. *vesicula*, *small bladder*.] A small bladder-like cyst or sac; a vesicle.

vesicula seminalis,—a sac in which spermatozoa complete their development and are stored.

vesicular (vēs'ik'ulār) *a.* [L. *vesicula*, *small bladder*.] Composed of or marked by presence of vesicle-like cavities; bladder-like.

vesicular gland,—a gland in tissue underlying epidermis in plants and containing essential oils.

vesicular ovarian follicle,—Graafian follicle, *q.v.*

vesiculase (vēs'ik'ulās) *n.* [L. *vesicula*, *small bladder*.] An enzyme from secretion of prostate gland, capable of coagulating contents of seminal vesicles.

vespertine (vēs'pērtīn) *a.* [L. *vesper-tinus*, of the evening.] Blossoming or active in the evening; crepuscular.

vespoid (vēs'poid) *a.* [L. *vespa*, *wasp*; Gk. *eidos*, *like*.] Wasp-like.

vessel (vēs'ēl) *n.* [L. *vascellum*, *dim.* of *vas*, *vessel*.] Any tube or canal with properly defined walls in which fluids, such as blood, lymph, etc., circulate; continuous tube formed by superposition of numerous cells.

vestibular (vēstīb'ūlār) *a.* [L. *vestibulum*, porch.] *Pert.* a vestibule; *appl.* artery, bulb, fissure, gland, nerve, etc.

vestibulate (vēstīb'ūlāt) *a.* [L. *vestibulum*, porch.] In the form of a passage between two channels; resembling, or having, a vestibule.

vestibule (vēs'tībūl) *n.* [L. *vestibulum*, porch.] Vestibulum; a cavity leading into another cavity or passage, as cavity of ear-labyrinth; space between labia minora containing opening of urethra; portion of ventricle directly below opening of aortic arch; cavity leading to larynx; nasal cavity; posterior chamber of bird's cloaca; small tubular or grooved depression leading to mouth in most infusorians; space within circle of tentacles in endoproctan polyzoans; pit leading to pore or stoma of leaf.

vestige (vēs'tij) *n.* [L. *vestigium*, trace.] A small degenerate or imperfectly developed organ or part which may have been complete and functional in some ancestor.

vestigial (vēstij'jāl) *a.* [L. *vestigium*, trace.] Small and imperfectly developed.

vestiture (vēs'tītūr) *n.* [L. *vestitus*, garment.] A body covering, as of scales, feathers, etc.

veterinary (vēt'ērīnārī) *a.* [L. *veterinus*, *pert.* beasts of burden.] *Pert.* science and art of treating diseases of animals.

vexilla,—*plu.* of vexillum.

vexillary vēk'silārī) *a.* [L. *vexillum*, standard.] *Pert.* a vexillum; *appl.* type of imbricate aestivation in which upper petal is folded over others; vexillar.

vexillate (vēk'silāt) *a.* [L. *vexillum*, standard.] Bearing a vexillum.

vexillum (vēksil'ūm) *n.* [L. *vexillum*, standard.] Standard or upper petal in papilionaceous flower; vane of feather.

via (vī'ā, vē'ā) *n.* [L. *via*, way.] A way or passage.

viable (vī'ābl) *a.* [F. *vie*, life.] Cap-

able of living; capable of developing and surviving parturition.

viatical (viāt'ikāl) *a.* [L. *via*, way.] *Appl.* plants growing by the roadside.

vibraculum (vībrāk'ūlūm) *n.* [L. *vibrare*, to quiver.] Modified whip-like avicularium for defensive purposes, in Polyzoa; vibraculum.

vibratile (vīb'rātīl) *a.* [L. *vibrare*, to quiver.] Oscillating; *appl.* antennae of insects.

vibratile corpuscles,—corpuscles closely resembling sperms found in coelomic fluid of starfish.

vibrioid (vīb'rīoid) *a.* [L. *vibrare*, to quiver; Gk. *eidos*, like.] Like a vibrio, a bacterium with thread-like appendages and a vibratory motion.

vibrioid body,—a slender cylindrical body found in superficial cytoplasmic layer of certain algae and fungi.

vibrissa (vībris'ā) *n.* [L. *vibrissa*, nostril-hair.] A hair growing on nostril or face of animals, as whiskers of cat, acting often as tactile organ; a feather at base of bill or around eye; one of paired bristles near upper angles of mouth cavity in Diptera; one of the sensitive hairs of an insectivorous plant, as of Dionaea.

vicariation (vī'kārīā'shūn) *n.* [L. *vicarius*, deputy.] The separate occurrence of corresponding species, as reindeer and caribou, in corresponding but separate environments.

vicinism (vīs'inīzm) *n.* [L. *vicinus*, neighbour.] Tendency to variation due to proximity of related forms.

Vicq-d'Azyr, bundles of [F. *Vicq-d'Azyr*, French comparative anatomist]. The thalamomamillary fasciculus.

villi,—*plu.* of villus.

villiform (vīl'fōrm) *a.* [L. *villus*, shaggy hair; *forma*, shape.] Having form or appearance of velvet; *appl.* dentition.

villose, (vīl'ōs), **villous** (vīl'ūs) *a.* [L. *villus*, shaggy hair.] Pubescent; having villi or covered with villi.

villus (vil'ūs) *n.* [L. *villus*, shaggy hair.] Trophonema or one of minute vascular processes on small intestine lining; one of processes on chorion through which nourishment passes to embryo; pacchionian body, *q.v.*, of arachnoid; invagination, into joint-cavity, of a synovial membrane; fine straight process on epidermis of plants.

vimen (vi'mén) *n.* [L. *vimen*, osier.] Long slender shoot or branch. *Plu.* vimina.

vinculum (ving'kūlūm) *n.*, **vincula** (ving'kūlā) *plu.* [L. *vinculum*, bond.] Slender tendinous bands; accessory connecting bands of fibres, as vincula brevia; band uniting two main tendons of foot in birds; sternal region of ninth segment in Lepidoptera.

viosterol, — irradiated ergosterol, vitamin D₂ preparation influencing calcium and phosphorus assimilation.

viral (vi'rāl) *a.* [L. *virus*, poison.] *Pert.*, consisting of, or due to a virus.

virescence (virēs'ēns) *n.* [L. *virescere*, to grow green.] Production of green colouring matter in petals instead of usual pigment.

virescent, — turning greenish or green.

virgate (vēr'gāt) *a.* [L. *virga*, rod.] Rod-shaped; striped.

virgula (vēr'gūlā) *n.* [L. *dim.* of *virga*, rod.] A small rod, axis of graptolite; a paired or bilobed structure or organ at oral sucker in certain trematodes.

virgulate (vēr'gūlāt) *a.* [L. *virgula*, little rod.] With or like a small rod or twig; having minute stripes.

viridant (vir'idānt) *a.* [L. *viridare*, to make green.] Becoming or being green.

viroids (vi'roidz) *n. plu.* [L. *virus*, poison; Gk. *eidōs*, form.] Ultra-microscopic entities or symbionts theoretically existing in living organisms, and able to give rise to viruses by mutation; *cf.* neovirus, palaeovirus.

virose (vi'rōs) *a.* [L. *virosus*,

poisonous.] Containing a virus; virose.

virulin, — aggrassin, *q.v.*

virus (vi'rūs) *n.* [L. *virus*, poisonous liquid.] One of the nucleoprotein-like entities able to pass through bacteria-retaining filters, having many characteristics of living organisms and recognised by their toxic or pathogenic effects in plants and animals.

viscera (vis'ērā) *n. plu.* [L. *viscera*, bowels.] The internal organs contained in various cavities of body.

visceral (vis'ērāl) *a.* [L. *viscera*, bowels.] *Pert.* viscera; *appl.* to numerous structures and organs.

visceral arches, — a series of arches developed in connection with mouth and pharynx.

visceral clefts, — a series of furrows or clefts in neck region between successive visceral arches.

viscerocranium (vis'ērōkrā'nīūm) *n.* [L. *viscera*, bowels; *cranium*, skull.] Jaws and visceral arches; *cf.* neurocranium.

visceromotor (vis'ērōmō'tōr) *a.* [L. *viscera*, bowels; *movere*, to move.] Carrying motor impulses to viscera.

viscin (vis'in) *n.* [L. *viscum*, mistletoe.] Sticky substance obtained from various plants, especially from berries of mistletoe; C₁₀H₂₄O₄.

viscosity (vis'kōs'itī) *n.* [L. *viscosus*, viscous.] Internal friction in fluids due to adherence of particles to one another.

viscus, — *sing.* of viscera.

visual purple, — porphyropsin, rhodopsin, *q.v.*

visual red, — a retinal pigment noticed in the tench.

visual violet, — iodopsin, *q.v.*

visual white, — the product of visual yellow irradiated by ultra-violet rays; leucopsin.

visual yellow, — a pigment formed by the action of light upon visual purple; a retinal pigment in certain fish; xanthopsin.

vital capacity, — of lungs, the sum of complementary, tidal, and supplemental air.

vital force,—form of energy manifested in living phenomena when considered distinct from chemical, physical, and mechanical forces; élan vital; *cf.* hormone.

vital functions,—functions of body on which life depends.

vitalism (vī'tälizm) *n.* [L. *vita*, life.] Belief of vitalists, that phenomena exhibited in living organisms are due to a special force distinct from physical and chemical forces.

vitamers (vī'tämërz) *n. plu.* [L. *vita*, life; Gk. *meros*, part.] Compounds having a chemical structure and physiological effects similar to those of natural vitamins.

vitamins (vī'täminz) *n. plu.* [L. *vita*, life; *ammoniacum*, resinous gum.] Accessory food factors deficiency or excess of which causes disease; *cf.* deficiency diseases.

vitazyme (vī'tāzim) *n.* [L. *vita*, life; *zyme*, leaven.] An enzyme having vitamins as part of its chemical structure.

vitellarium (vit'ëlä'rïüm) *a.* [L. *vitellus*, yolk.] A yolk gland in flatworms and many rotifers; part of an ovariole.

vitelligenous (vit'ëlj'ënüs) *a.* [L. *vitellus*, yolk; *gignere*, to beget.] Producing yolk; *appl.* cells in ovary of many insects; also vitellogeneous, vitellogene.

vitellin (vitël'in) *n.* [L. *vitellus*, yolk.] The phosphoprotein of egg-yolk; ovovitellin; similar or related substance in seeds.

vitelline (vitël'ën) *a.* [L. *vitellus*, yolk.] *Pert.* yolk, or yolk-producing organ; *appl.* artery, vein, duct, gland, membrane; yolk-coloured.

vitelloduct (vitël'ödükt) *n.* [L. *vitellus*, yolk; *ductus*, led.] Albuminiferous canal, duct conveying vitellus from yolk gland into oviduct.

vitellogen (vitël'öjën) *n.* [L. *vitellus*, yolk; *gignere*, to produce.] Yolk gland; vitellarium, *q.v.*

vitellophages (vitël'öfägz) *n. plu.* [L. *vitellus*, yolk; Gk. *phagein*,

to eat.] Isolated cells forming hypoblast of crustacean and insect egg.

vitellöse (vitël'ös) *n.* [L. *vitellus*, yolk.] A substance formed in digestion of yolk.

vitellus (vitël'üs) *n.* [L. *vitellus*, yolk.] Yolk of ovum or egg.

vitrella (vitrel'ä) *n.* [L. *vitrum*, glass.] A crystalline cone cell of an invertebrate eye.

vitreodentine (vit'rëödën'tin) *n.* [L. *vitreus*, glassy; *dens*, tooth.] A very hard variety of dentine; also vitrodentine.

vitreous (vit'rëüs) *a.* [L. *vitreus*, glassy.] Hyaline; transparent; *appl.* humour or body, the clear jelly-like substance in inner chamber of eye; *appl.* membrane, the innermost layer of dermic coat of hair-follicle.

vitreum (vit'rëüm) *n.* [L. *vitreus*, glassy.] Vitreous humour of the eye; vitrina.

vitriification (vit'rifikä'shün) *n.* [L. *vitrum*, glass; *facere*, to make.] Condition of cells or organisms instantaneously frozen but able to resume all vital activities on being thawed out.

vitrina,—vitreum.

vitta (vit'ä) *n.*, **vittae** (vit'ë) *plu.* [L. *vitta*, band or fillet.] Oil receptacles in pericarp of Umbelliferae; a longitudinal ridge in diatoms; a band of colour.

vittate (vit ät) *a.* [L. *vittatus*, with a fillet.] Having ridges, stripes, or bands lengthwise.

vivification (viv'ifikä'shün) *n.* [L. *vivus*, living; *facere*, to make.] One of series of changes in assimilation by which proteid material which has been taken up by cell is able to exhibit phenomena of living protoplasm.

viviparity (viv'ipär'iti) *n.* [L. *vivus*, alive; *parere*, to beget.] Condition of bringing young forth alive; or of multiplying by means of shoots or bulbils; vivipary.

viviparous (vivip'ärüs) *a.* [L. *vivus*, living; *parere*, to beget.] Bringing

- forth young alive; *cf.* oviparous, ovoviviparous; germinating while still attached to parent plant; exhibiting vivipary, as certain tropical plants.
- vocal** (vō'kāl) *a.* [L. *vox*, voice.] *Pert.* voice or utterance of sounds.
- vocal cords**,—folds of mucous membrane projecting into larynx.
- volar** (vō'lār) *a.* [L. *vola*, palm of hand.] *Pert.* palm of hand or sole of foot.
- Volkmann's canals** [*A. W. Volkmann*, German physiologist]. Simple canals piercing circumferential or periosteal lamellae of bone, for blood-vessels, and joining Haversian canal system.
- voltine** (vōl'tīn) *a.* [It. *volta*, time.] *Pert.* number of broods in a year, as of silkworms.
- volute** (vōl'ūbl) *a.* [L. *volvere*, to roll.] Twining spirally.
- voluntary** (vōl'üntārī) *a.* [L. *voluntas*, will.] Subject to or regulated by the will; *appl.* striped muscles and their action.
- volute** (vōlūt) *a.* [L. *volvere*, to roll.] Rolled up; spirally twisted.
- volutin grains**,—ribonucleic acid granules formed in cytoplasm and representing a food-material which is absorbed by the nucleus in growth and formation of chromatin; metachromatic bodies.
- volution** (vōlū'shūn) *n.* [L. *volvere*, to roll.] Spiral twist of a shell or of cochlea.
- volva** (vōl'vā) *n.* [L. *volva*, wrapper.] Tissue enveloping the sporophore of some Agaricales and Boletales, the universal veil; universal veil after becoming detached from pileus and limited to lower part of stipe.
- volvate** (vōl'vāt) *a.* [L. *volva*, wrapper.] Provided with a volva.
- vomer** (vō'mēr) *n.* [L. *vomer*, plough-share.] A bone in nasal region.
- vomerine** (vō'mērīn) *a.* [L. *vomer*, plough-share.] *Pert.* vomer; *appl.* teeth.
- vomeronasal** (vō'mērōnā'zāl) *a.* [L. *vomer*, ploughshare; *nasus*, nose.] *Appl.* cartilage and organ in region of vomer and nasal cavity; *cf.* Jacobson's cartilage and organ.
- vomeropalatine** (vō'mērōpāl'ātin) *n.* [L. *vomer*, ploughshare; *palatum*, palate.] Fused vomer and palatine, in some ganoids and amphibians.
- von Baer's law** [*K. E. von Baer*, German biologist]. Recapitulation theory, *q.v.*
- vortex** (vōr'tēks) *n.* [L. *vortex*, vortex.] Spiral arrangement of muscle fibres at apex of heart; spiral arrangement of hairs.
- vulva** (vül'vā) *n.* [L. *vulva*, vulva.] The external female genitalia or pudendum; recess of third ventricle, between columns of fornix; epigynum, *q.v.*
- vulviform** (vül'vifōrm) *a.* [L. *vulva*, vulva; *forma*, shape.] Like a cleft with projecting lips; shaped like a vulva.
- vulvouterine** (vül'vōū'tērīn) *a.* [L. *vulva*, vulva; *uterus*, womb.] *Pert.* vulva and uterus.
- vulvovaginal** (vül'vōvāj'īnāl) *a.* [L. *vulva*, vulva; *vagina*, sheath.] *Pert.* vulva and vagina.

W

- Wagner's corpuscles** [*R. Wagner*, German physiologist]. Tactile corpuscles; Meissner's corpuscles.
- Waldeyer's tonsillar ring** [*H. W. G. von Waldeyer*, German anatomist]. See tonsillar ring.
- Wallace's Line** [*A. R. Wallace*, English naturalist]. Imaginary line, separating Australian and Oriental zoogeographical regions, between Bali and Lombok, between Celebes and Borneo, and then eastward of Philippines.
- Wallerian degeneration** [*A. V. Waller*, English physiologist]. Degeneration of nerve fibres following section, produced distally to the injury.
- wandering cells**,—amoeboid cells of mesogloea; cercids; migratory leucocytes of areolar tissue; planocytes.

wandering resting cells,—macrophages in connective tissue; clasmatoocytes, histiocytes, rhagiocrine cells.

Warburg's factor [*O. H. Warburg*, German physiologist]. A respiratory enzyme, cytochrome oxidase; intracellular oxidation catalyst.

Warburg's yellow enzyme,—*see* yellow enzyme.

warm-blooded,—*appl.* animals which have a fairly high and constant temperature above that of surrounding medium; homoiothermal.

warning colours,—conspicuous colours assumed by many animals to warn off enemies.

wart (wört) *n.* [*A.S. wearte*, *wart.*] A dry excrescence formed on skin; firm glandular protuberance; verruca, *q.v.*

water-cells,—specialised cells in stomach of camel, for storage of fluid.

water culture,—experimental raising of plants in water to see effects of different nutrient solutions; *cf.* hydroponics.

water-gland,—structure in mesophyll of leaves regulating water excretion through stomata.

water-pore,—minute ciliated opening through actinal wall of disc of Antedon; opening at apex of leaf-vein for excretion of water.

water stomata,—pores on surfaces of leaves for excretion of water; hydathodes.

water-tube,—ciliated branched tube connected with ring-vessel and coelom or with gill-structures.

water vascular system,—system of canals circulating watery fluid throughout body of Echinoderma; also applied to excretory system of Platyhelminthes.

wattle (wötl) *n.* [*M.E. watel*, *bag.*] Fleshy process under throat of cock or turkey, and of certain reptiles; tassel or appendix colli; barbel. [*A.S. watel*, interwoven twigs.] *Acacia.*

wax (wäks) *n.* [*A.S. weax*, *wax.*] A

substance soluble in fat solvents, produced by plants to reduce transpiration, and by animals, as by honey-bees and scale-insects.

wax-hair,—a filament of wax extruded through pore of the wax-gland, as in certain scale insects.

wax-pocket,—one of the paired wax-secreting glands on abdomen of worker bee.

W-chromosome,—the X-chromosome when female is the heterozygous sex.

web (wëb) *n.* [*A.S. webbe*, *web.*] Membrane stretching from toe to toe, as in frog and swimming birds; vexillum; network of threads spun by spiders.

Weberian apparatus [*E. H. Weber*, German physiologist]. An apparatus found in Cypriniformes, and including Weberian ossicles, a chain of four small bones stretching on each side from a membranous fenestra of atrium to air-bladder.

Weber's law,—inference that, within limits, equal relative differences between two stimuli of the same kind are equally perceptible.

Weber's line [*M. Weber*, Dutch zoologist]. Imaginary line separating islands with a preponderant Indo-Malayan fauna from those with a preponderant Papuan fauna.

Weber's organ [*M. I. Weber*, German anatomist]. Uterus masculinus, *q.v.*

wedge-and-groove suture,—schindylesis.

wedge bones,—small infravertebral ossifications at junction of two vertebrae, often present in lizards.

weismannism (vis'mänizm) *n.* [*A. F. L. Weismann*, German biologist]. The teaching of Weismann in connection with evolution and heredity, dealing chiefly with continuity of germ-plasm, and non-transmissibility of acquired characters.

Weismann's gland,—ring gland, *q.v.*

Wharton's duct [*T. Wharton*, English anatomist]. The duct of the submaxillary gland; submaxillary duct.

Wharton's jelly,—the gelatinous core of the umbilical cord.

wheel organ,—locomotory ciliated ring or trochal disc of Rotifera; specialised ciliated epithelial structure in buccal cavity of Cephalochorda.

whirl,—whorl, *q.v.*

white blood cell,—leucocyte.

white body,—so-called optic gland of molluscs, a large soft body of unknown function.

white commissure,—anterior commissure, a transverse band of white fibres forming floor of median ventral fissure of spinal cord.

white matter,—tracts of medullated fibres in brain and spinal cord.

white yolk spheres,—minute vesicles forming a flask-shaped plug in centre of egg-yolk, and fine layers alternating with yellow yolk.

whorl (hwörl) *n.* [A.S. *hweorfan*, to turn.] The spiral turn or volution of a univalve shell; circle of flowers, parts of a flower, or leaves, arising from one point; a verticil.

wild type,—the typical form or genotype of an organism as found in nature, *opp.* mutant.

Willis's circle [*T. Willis*, English anatomist]. Arterial circle, an anastomosis in subarachnoid space at base of brain.

wilting coefficient,—percentage of moisture in soil when wilting takes place.

wind-fertilisation,—fertilisation of plants by pollen carried by wind; wind-pollination, *a.* *emophily*.

wing (wing) *n.* [M.E. *winge*, wing.] One of two lateral petals in a papilionaceous flower; lateral expansion on many seeds; any broad membranous expansion; large lateral process of sphenoid; forelimb modified for flying, in pterodactyls, birds and bats; flight organ of insects; *ala*.

wing coverts,—tectrices, *q.v.*

winged stem,—stem having photosynthetic expansions.

wing-pad,—undeveloped wing of insect pupae.

wing petal,—lateral petal in papilionaceous flowers.

wing quills,—remiges, *q.v.*

wing sheath,—elytrum of insects.

Winslow's foramen [*J. B. Winslow*, Danish anatomist]. Epiploic foramen.

winter bud,—dormant bud, protected by hard scales during winter.

winter egg,—egg of many freshwater forms, provided with thick shell which preserves it as it lies quiescent during winter; *cf.* summer egg.

Wirsung's duct [*J. G. Wirsung*, Bavarian surgeon]. The main pancreatic duct.

wisdom teeth,—four molar teeth which complete permanent set in man, erupting late.

wolf tooth,—a small premolar tooth at front of premolar series, occasionally present in horses.

Wolffian (völ'fiän) *a.* [*C. F. Wolff*, German embryologist]. *Appl.* certain structures first discovered by Wolff.

Wolffian body,—embryonic mesonephros arising as a series of tubules.

Wolffian duct,—duct of mesonephros.

Wolffian ridges,—ridges which appear on either side of middle line of early embryo, and upon which limb-buds are formed.

Wolfring's glands [*E. F. Wolfring*, Polish ophthalmologist]. Tubulo-alveolar glands near proximal end of tarsi of eyelids, with ducts opening on conjunctiva.

wood (wood) *n.* [A.S. *wudu*, wood.] The hard substance of a tree stem, xylem of vascular bundles.

wood vessel,—an element of tracheal tissue, a long tubular structure formed by cell-fusion.

Woolner's tubercle [*T. Woolner*, British sculptor]. Darwinian tubercle, *q.v.*

worker,—non-fertile female in a colony of social insects.

worm (würm) *n.* [A.S. *wyrm*, worm.] A general name, of no scientific value, used to designate any of the flatworms, roundworms, polychaetes, or oligochaetes; *lytta*, as of dog; *vermis*.

Wormian bones [*O. Worm* or *Wormius*, Danish anatomist]. Sutural bones, *q.v.*

Woronin bodies,—metachromatic bodies in protoplasm of certain hyphal cells, as in *Discomycetes*.

Woronin hypha,—a hypha inside coil of perithecial hyphae and giving rise to ascogonia, as in *Sphaeriales*; *scolecite*.

wound cambium,—cambium forming protective tissue at site of an injury.

wound hormones,—substances produced in wounded cells, said to act as stimulus to renewed growth near the wounds; *cf.* *traumatin*.

w-substance,—a pituitary hormone. secreted by pars tuberalis and inducing contraction of chromatophores.

X

xanthein (zăn'thēin) *n.* [Gk. *xanthos*, yellow.] A water-soluble yellow colouring matter of cell-sap.

xanthin (zăn'thīn) *n.* [Gk. *xanthos*, yellow.] Yellow colouring matter in flowers.

xanthine (zăn'thīn) *n.* [Gk. *xanthos*, yellow.] Dioxy-purine found in muscle, liver, pancreas, spleen, urine also in certain plants; $C_5H_4N_4O_2$.

xanthocarpous (zăn'thōkâr'pūs) *a.* [Gk. *xanthos*, yellow; *karpōs*, fruit.] Having yellow fruits.

xanthodermic (zăn'thōdēr'mik) *a.* [Gk. *xanthos*, yellow; *derma*, skin.] Having a yellowish skin.

xanthodont (zăn'thōdōnt) *a.* [Gk. *xanthos*, yellow; *odous*, tooth.] Having yellow-coloured incisors; *appl.* certain rodents.

xantholeucite (zăn'thōloo'sīt) *n.* [Gk. *xanthos*, yellow; *leukos*, white.] Leucoplast of an etiolated plant.

xantholeucophore (zăn'thōlook'ōfōr), *n.* [Gk. *xanthos*, yellow; *leukos*, white; *pherein*, to bear.] Yellow pigment-bearing cell; *xanthophore*, *q.v.*

xanthophane (zăn'thōfān) *n.* [Gk. *xanthos*, yellow; *phainein*, to appear.] A yellow chromophane.

xanthophore (zăn'thōfōr) *n.* [Gk. *xanthos*, yellow; *pherein*, to bear.] A yellow chromatophore; *lipophore*.

xanthophyll (zăn'thōfīl) *n.* [Gk. *xanthos*, yellow; *phyllon*, leaf.] A yellow colouring matter found in plastids, as in autumn leaves; *lutein*; $C_{40}H_{56}O_2$.

xanthoplast (zăn'thōplāst) *n.* [Gk. *xanthos*, yellow; *plastos*, formed.] A yellow plastid or chromatophore.

xanthopous (zăn'thōpūs) *a.* [Gk. *xanthos*, yellow; *pous*, foot.] Having a yellow stem.

xanthopsin (zăn'thōp'sīn) *n.* [Gk. *xanthos*, yellow; *opsis*, sight.] Yellow pigment of insect eyes; *visual yellow*, *q.v.*

xanthopterine (zăn'thōp'tērīn) *n.* [Gk. *xanthos*, yellow; *pteron*, wing.] Yellow pigment of wing of lemon butterfly and of integument of wasps, etc.; possibly precursor of anti-anaemia vitamin M; $C_{19}H_{18}O_6N_{16}$.

xanthosomes (zăn'thōsōmz) *n. plu.* [Gk. *xanthos*, yellow; *soma*, body.] Amber-coloured excretory granules in foraminifera.

xanthospermous (zăn'thōspēr'mūs) *a.* [Gk. *xanthos*, yellow; *sperma*, seed.] Having yellow seeds.

X-bodies,—protein-like inclusions in cells affected by a virus.

X-chromosome,—sex-chromosome, single in the heterogametic sex, paired in the homogametic sex.

xenarthral (zēnâr'thrāl) *a.* [Gk. *xenos*, strange; *arthron*, joint.] Having additional articular facets on dorso-lumbar vertebrae.

xenia (zē'nīā) *n.* [Gk. *xenios*, hospitable.] Appearances in seed, fruit, or maternal tissues, of characters belonging to male parent.

- xeniobiosis** (zēnīōbīō'sis) *n.* [Gk. *xenios*, hospitable; *bioun*, to live.] Hospitality, in ant colonies.
- xenoecic** (zēnē'sik) *a.* [Gk. *xenos*, host; *oikos*, house.] Living in the empty shell of another organism.
- xenogamy** (zēnōg'āmī) *n.* [Gk. *xenos*, strange; *gamos*, marriage.] Cross-fertilisation.
- xenogenesis** (zēnōjēn'ēsīs) *n.* [Gk. *xenos*, strange; *genesis*, descent.] Heterogenesis.
- xenogenous** (zēnōj'ēnūs) *a.* [Gk. *xenos*, strange; *genos*, descent.] Originating outside the organism; caused by external stimuli; exogenous.
- xenology** (zēnōl'ojī) *n.* [Gk. *xenos*, host; *logos*, discourse.] The study of hosts in relation to the life-history of parasites; *cf.* definitive host, intermediate host.
- xenomixis** (zēn'ōmīk'sis) *n.* [Gk. *xenos*, strange; *mixis*, mingling.] Union of sex elements of different lineage; exomixis.
- xenomorphosis** (zēnōmôr'fōsis) *n.* [Gk. *xenos*, strange; *morphosis*, a shaping.] Heteromorphosis.
- xenophya** (zēn'ōfī'ā) *n. plu.* [Gk. *xenos*, stranger; *phyein*, to grow.] Foreign bodies deposited in inter-spaces of certain Sarcodina, or used in formation of shells of certain protozoa; *cf.* autophya.
- xenoplastic** (zēn'ōplās'tik) *a.* [Gk. *xenos*, stranger; *plastos*, formed.] *Appl.* graft established in a different host; *cf.* heteroplastic.
- xerantic** (zērān'tik) *a.* [Gk. *xeransis*, parching.] Drying up; withering, parched, exsiccant.
- xerarch** (zēr'rārċ) *a.* [Gk. *xeros*, dry; *arche*, beginning.] *Appl.* seres progressing from xeric towards mesic conditions.
- xeric** (zēr'rik) *a.* [Gk. *xeros*, dry.] Characterised by a scanty supply of moisture; tolerating, or adapted to, arid conditions. *Opp.* hygic.
- xerochasy** (zēr'rōkā'sī) *n.* [Gk. *xeros*, dry; *chasis*, separation.] Dehiscence of seed vessels when

- induced by aridity; *cf.* hygrochasy.
- xeromorphic** (zērōmôr'fik) *a.* [Gk. *xeros*, dry; *morphe*, form.] Structurally modified so as to retard transpiration; *appl.* characters of xerophytes.
- xeromorphy**, — xeromorphic condition.
- xerophilous** (zērōf'ilūs) *a.* [Gk. *xeros*, dry; *philein*, to love.] Able to withstand drought; *appl.* plants adapted to a limited water supply; xerophil.
- xerophobic** (zērōf'ōbūs) *a.* [Gk. *xeros*, dry; *phobos*, fear.] Not tolerating drought.
- xerophyte** (zēr'rōfit) *n.* [Gk. *xeros*, dry; *phyton*, plant.] A xerophilous plant; a plant growing in desert or alkaline or physiologically dry soil; a xerophil.
- xerophyton** (zēr'rōfī'tōn) *n.* [Gk. *xeros*, dry; *phyton*, plant.] A plant inhabiting dry land.
- xeropoium** (zēr'rōpoi'ūm) *n.* [Gk. *xeros*, dry; *poa*, grass.] Steppe vegetation.
- xerosere** (zēr'rōsēr) *n.* [Gk. *xeros*, dry; L. *serere*, to put in a row.] A plant succession originating on dry soil.
- xerotherm** (zēr'rōthērm) *n.* [Gk. *xeros*, dry; *therme*, heat.] A plant surviving in conditions of drought and heat.
- x-generation**, — gametophyte; 2x, sporophyte generation.
- xiphihumeralis** (zif'ihūmērāl'is) *n.* [Gk. *xiphos*, sword; L. *humerus*, shoulder.] A muscle extending from xiphoid cartilage to humerus.
- xiphiplastron** (zif'iplās'trōn) *n.* [Gk. *xiphos*, sword; F. *plastron*, breast-plate.] Fourth lateral plate in plastron of Chelonia.
- xiphisternum** (zif'istēr'nūm) *n.* [Gk. *xiphos*, sword; L. *sternum*, breast-bone.] The posterior segment or ensiform process of sternum; metasternum.
- xiphoid** (zif'oid) *a.* [Gk. *xiphos*, sword; *eidōs*, shape.] Sword-shaped; ensiform; xiphoid.

xiphoid process,—last segment of sternum; xiphisternum; tail or telson of Limulus.

xiphophyllous (zif'öfil'üs) *a.* [Gk. *xiphos*, sword; *phyllon*, leaf.] Having sword-shaped leaves.

X-organ,—small compact or sac-like incretory organ found on eye-stalk of certain Crustacea.

xylary (zi'läri) *a.* [Gk. *xylon*, wood.] *Pert.* xylem; *appl.* fibres, procambium, etc.; xyleic.

xylem (zi'lēm) *n.* [Gk. *xylon*, wood.] Lignified portion of vascular bundle.

xylem-canal,—narrow tubular space replacing central xylem in demersed stem of some aquatic plants.

xylem-parenchyma,—short lignified cells surrounding vascular cells or produced with other xylem cells toward the end of the growing season.

xylem-ray,—ray or plate of xylem between two medullary rays.

xylocarp (zi'lökärp) *n.* [Gk. *xylon*, wood; *karpōs*, fruit.] A hard woody fruit.

xylochrome (zi'lökröm) *n.* [Gk. *xylon*, wood; *chroma*, colour.] Wood dye or pigment of tannin, produced before death of wood-cells.

xylogen (zi'löjēn) *n.* [Gk. *xylon*, wood; *-genes*, producing.] The forming wood in a bundle; lignin, *q.v.*

xyloic (zi'löik) *a.* [Gk. *xylon*, wood.] *Pert.* xylem; *appl.* procambium that gives rise to xylem; xylary.

xyloid (zi'löid) *a.* [Gk. *xylon*, wood; *eidos*, shape.] Woody, or resembling wood in structure; ligneous.

xyloma (zilö'mä) *n.* [Gk. *xylon*, wood.] A hardened mass of mycelium which gives rise to spore-bearing structures in certain fungi; a tree tumour.

xylophagous (zilöf'ägüs) *a.* [Gk. *xylon*, wood; *phagein*, to eat.] Wood-eating; *appl.* certain molluscs, insects, fungi; xylophilous.

xylophilous (zilöf'ilüs) *a.* [Gk. *xylon*,

wood; *philein*, to love.] Preferring wood; growing on wood.

xylophyte (zi'löfit) *n.* [Gk. *xylon*, wood; *phyton*, plant.] A woody plant.

xylostroma (zi'löströ'mä) *n.* [Gk. *xylon*, wood; *stroma*, bedding.] The felt-like mycelium of certain wood-destroying fungi.

xylotomous (zilöt'ömüs) *a.* [Gk. *xylon*, wood; *temnein*, to cut.] Able to bore or cut wood.

X-zone,—transitory region of inner adrenal cortex.

Y

yarovization,—jarovization, vernalization, *q.v.*

Y-cartilage,—cartilage joining ilium, ischium and pubes in the acetabulum.

Y-chromosome,—the sex-chromosome which pairs with the X-chromosome in the heterogametic sex.

yelk,—yolk.

yellow body,—corpus luteum.

yellow cartilage,—a cartilage with matrix pervaded by yellow or elastic connective tissue fibres.

yellow cells,—chloragogen cells surrounding gut of Annelida; cells occurring in intestine of Turbellaria; in Radiolaria, symbiotic algae or zoochlorellae; zooxanthellae; chromo-argentaffin cells.

yellow enzyme,—a combination of riboflavine, a protein, and phosphoric acid, essential in cellular respiration; yellow oxidation catalyst; cytoflavin.

yellow spot,—macula lutea of retina.

Y-granules,—granules, microchemically allied to yolk, found in male germ cells; yolk granules.

Y-ligament,—iliofemoral ligament.

yolk (yök) *n.* [A.S. *geoloca*, yellow part.] Inert, or non-formative, nutrient material in ovum; vitellus; suint or greasy substance of fleece.

yolk-duct,—vitelline duct.

yolk-epithelium,—epithelium surrounding yolk-sac.

yolk-gland,—a gland in connection with reproductive system by which egg is furnished with a supply of food-material; vitellarium.

yolk-nucleus or **vitelline body**,—cytoplasmic body appearing in ovarian egg; Balbiani's body or nucleus.

yolk-plates,—parallel lamellae into which deutoplasm may be split up in amphibians and many fishes.

yolk-plug,—mass of yolk-cells filling up blastopore, as in frog.

yolk-pyramids,—certain cells formed in segmenting egg of crayfish.

yolk-sac,—membranous sac attached to embryo and containing yolk which passes to intestine through vitelline duct and acts as food for developing embryo.

yolk-spherules,—remains of neighbouring cells or of pseudo-cells found in ovum.

yolk-stalk,—a short stalk or strand containing ducts and connecting yolk-sac with embryo.

ypsiliform (ip'silifōrm) *a.* [Gk. *Y*, upsilon; *L. forma*, shape.] Y-shaped; *appl.* germinal spot at a certain stage in its development; ypsiloid.

ypsiloid (ip'siloid) *a.* [Gk. *Y*, upsilon; *eidos*, form.] Y-shaped; *appl.* cartilage anterior to pubis in salamanders, for attachment of muscles used in breathing.

Y-shaped ligament of Bigelow,—the iliofemoral ligament.

Z

zalambdodont (zālām'dōdōnt) *a.* [Gk. *za*, very; *lambda*, λ; *odous*, tooth.] *Appl.* insectivores with narrow molar teeth with V-shaped transverse ridges.

Z-chromosome,—the Y-chromosome when female is the heterozygous sex.

Z-disc,—intermediate disc; Krause's membrane; Dobie's line, telophragma, plasmophore.

zeaxanthin (zē'āzān'thīn) *n.* [Gk.

zea, corn; *xanthos*, yellow.] The yellow carotenoid pigment of maize, or of yolk; xanthophyll or lutein, $C_{40}H_{56}O_2$.

Zeis, glands of,—sebaceous glands associated with eyelashes.

zero (zē'rō) *n.* [Ar. *cifrun*, cipher.] The origin of graduation.

zero, physiological,—point of adaptation to temperature.

zeugopodium (zū'gōpō'diūm) *n.* [Gk. *zeugos*, joined; *pous*, foot.] Forearm; shank.

Zinn, zonule of [*J. G. Zinn*, German anatomist]. Zonula ciliaris.

zoaea,—zoëa, *q.v.*

zoanthella (zōānthēl'ā) *n.* [Gk. *zoon*, animal; *anthos*, flower.] Type of zoanthid larva with transverse girdle of cilia.

zoanthina (zōān'thīnā) *n.* [Gk. *zoon*, animal; *anthinos*, of flowers.] Type of zoanthid larva with longitudinal band of cilia.

zoarium (zōā'riūm) *n.* [*Dim.* of Gk. *zoon*, animal.] All the individuals of a polyzoan colony; a polypary.

zodiophilous,—zoophilous, *q.v.*

zoëa (zōē'ā) *n.* [Gk. *zoe*, life.] Early larval form of certain decapod crustaceans.

zoëaform (zōē'āfōrm) *a.* [Gk. *zoe*, life; *L. forma*, shape.] Shaped like a zoëa; also zoaeaform.

zoecial, zoecium,—see zoöe.

zoetic (zōēt'ik) *a.* [Gk. *zoe*, life.] Of or *pert.* life.

zoic (zō'ik) *a.* [Gk. *zoikos*, *pert.* life.] Containing remains of organisms and their products, *opp.* azoic. [Gk. *zoon*, animal.] *Pert.* animals or animal life.

zoid (zō'id) *n.* [Gk. *zoon*, animal; *idion*, *dim.*] A zoospore; a sporozoite formed by division of sporoblasts of Haemosporidia.

zoidiogamic (zōid'iōgām'ik) *a.* [Gk. *zoon*, animal; *idion*, *dim.*; *gamos*, marriage.] *Appl.* plants fertilised by spermatozooids carried by water.

zoidiogamy (zōid'iōgāmi) *n.* [Gk. *zoon*, animal; *idion*, *dim.*; *gamos*, marriage.] Fertilisation by motile spermatozooids or antherozoids.

zoidophore (zō'idōfōr) *n.* [Gk. *zoon*, animal; *idion*, *dim.*; *pherein*, to bear.] A spore mother cell or sporoblast formed by segmentation of oocyte in Haemosporidia.

zona (zō'nā) *n.* [L. *zona*, girdle.] A zone, band, or area.

zona arcuata,—inner part of basilar membrane, supporting spiral organ of Corti.

zona fasciculata,—radially arranged columnar cells in suprarenal cortex below zona glomerulosa.

zona glomerulosa,—rounded groups of cells forming external layer of suprarenal cortex beneath capsule.

zona granulosa,—granular zone around ovum in Graafian follicle, formed by cells of membrana granulosa; discus proligerus.

zona orbicularis,—circular fibres of capsule of hip-joint, around neck of femur.

zona pectinata,—outer division of basilar membrane of cochlea.

zona pellucida,—thick transparent membrane surrounding ovum; zona striata.

zona radiata,—radially striated inner egg-envelope, as in Polychaeta; membrane with radially arranged pores receiving cell processes from corona radiata, *q.v.*

zona reticularis or **reticulata**,—inner layer of suprarenal cortex.

zona striata,—zona pellucida.

zona tecta,—zona arcuata.

zonal (zō'nāl) *a.* [L. *zonalis*, *pert.* zone.] Of or *pert.* a zone.

zonal symmetry,—metamerism, *q.v.*

zonal view,—view of diatom when the girdle is seen.

zonality (zōnāl'itī) *n.* [L. *zona*, girdle.] Zonal distribution; zonal character.

zonary (zō'nārī) *a.* [L. *zona*, girdle.] *Appl.* placenta with villi arranged in a band or girdle.

zonate (zō'nāt) *a.* [L. *zona*, girdle.] Zoned or marked with rings; arranged in a single row, as some tetraspores.

zonation (zōnā'shūn) *n.* [L. *zona*,

girdle.] Arrangement or distribution in zones.

zone (zōn) *n.* [Gk. *zone*, girdle.] An area characterised by similar fauna or flora; a belt or area to which certain species are limited; stratum or set of beds characterised by typical fossil or set of fossils; an area or region of the body; zona.

zonite (zō'nīt) *n.* [Gk. *zone*, girdle.] A body segment of Diplopoda.

zonociliate (zō'nōsil'īāt) *a.* [Gk. *zone*, girdle; L. *cilium*, eyelash.] Banded with cilia, as certain annelid larvae.

zonoid (zō'noid) *a.* [Gk. *zone*, girdle; *eidos*, form.] Like a zone.

zonolimnetic (zō'nōlimnēt'ik) *a.* [Gk. *zone*, girdle; *limne*, pool.] Of or *pert.* a certain zone in depth; *appl.* fresh-water plankton.

zonoplacental (zō'nōplāsēn'tāl) *a.* [L. *zona*, girdle; *placenta*, cake.] Having a zonary placenta.

zonula ciliaris (zō'nulā siliā'ris) *n.* [L. *zonula*, *dim.* of *zona*, girdle; *cilium*, eyelash.] The hyaloid membrane forming suspensory ligament of lens of eye; zonule of Zinn.

zonule (zō'nul) *n.* [L. *zonula*, *dim.* of *zona*, girdle.] A little zone, belt, or girdle; zonula.

zooamylon (zō'ōām'ilōn) *n.* [Gk. *zoon*, animal; *amylon*, starch.] Food reserve in refractile bodies of cytoplasm, as in protozoa; paramylon, paraglycogen.

zooanthellae (zō'ōānthēl'ē) *n. plu.* [Gk. *zoon*, animal; *anthos*, flower.] Cryptomonads symbiotic with certain marine protozoa.

zoopocrosis (zō'ōāpōk'rīsīs) *n.* [Gk. *zoon*, animal; *apokrisis*, answer.] The response of animals to their environmental conditions as a whole.

zoobenthos (zō'ōbēn'thōs) *n.* [Gk. *zoon*, animal; *benthos*, depths of sea.] The fauna of the sea-bottom, or of the bottom of inland waters.

zoobiotic (zō'ōbiōt'ik) *a.* [Gk. *zoon*, animal; *bios*, life.] Parasitic on an animal, as some fungi.

zooblast (zō'ōblāst) *n.* [Gk. *zoon*, animal; *blastos*, bud.] An animal cell.

zoecaulon (zō'ōkōl'ōn) *n.* [Gk. *zoon*, animal; *kaulos*, stalk.] Zoodendrium.

zooclorellae (zō'ōklōrēl'ē) *n. plu.* [Gk. *zoon*, animal; *chloros*, green.] Symbiotic green algae living in various animals, *e.g.* in Sarcodina, Radiolaria, Hydra.

zoochoric (zō'ōkōr'ik) *a.* [Gk. *zoon*, animal; *chorein*, to spread.] Dispersed by animals, *appl.* plants.

zoocoenocyte (zō'ōsē'nōsit) *n.* [Gk. *zoon*, animal; *koinos*, common; *kytos*, hollow.] A coenocyte bearing cilia, in certain algae; syn-zoospore.

zoocyst (zō'ōsist) *n.* [Gk. *zoon*, animal; *kystis*, sac.] A sporocyst.

zoocytiūm (zō'ōsit'ium) *n.* [Gk. *zoon*, animal; *kytos*, hollow.] In certain Infusoria, the common gelatinous and often branched matrix.

zoodendrium (zō'ōdēn'drīūm) *n.* [Gk. *zoon*, animal; *dendron*, tree.] The tree-like branched stalk of certain colonial infusorians.

zodynamics (zō'ōdīnām'iks) *n.* [Gk. *zoon*, animal; *dynamis*, power.] The physiology of animals.

zoocial (zōē'siāl) *a.* [Gk. *zoon*, animal; *oikos*, house.] *Pert.* or resembling a zoecium.

zoecium (zōē'siūm) *n.* [Gk. *zoon*, animal; *oikos*, house.] A chamber or sac enclosing a polyzoan nutritive zooid.

zoerythrin (zō'ōērith'rīn) *n.* [Gk. *zoon*, animal; *erythros*, red.] Red pigment found in plumage of various birds.

zoofulvin (zō'ōfūl'vīn) *n.* [Gk. *zoon*, animal; *L. fulvus*, yellow.] Yellow pigment found in plumage of various birds.

zoogamete (zō'ōgāmēt') *n.* [Gk. *zoon*, animal; *gametes*, spouse.] A motile gamete or planogamete.

zoogamy (zōōg'āmi) *n.* [Gk. *zoon*, animal; *gamos*, marriage.] Sexual reproduction in animals.

zoogenesis (zō'ōjēn'ēsīs) *n.* [Gk.

zoon, animal; *genesis*, descent.] The origin of animals; ontogeny and phylogeny of animals.

zoogenous (zōōj'ēnūs) *a.* [Gk. *zoon*, animal; *gennaein*, to produce.] Produced or caused by animals.

zoogeography (zō'ōjēōg'rāfi) *n.* [Gk. *zoon*, animal; *ge*, earth; *graphein*, to write.] The science of distribution of animals on the earth.

zoogloea (zō'ōglē'ā) *n.* [Gk. *zoon*, animal; *gloia*, glue.] A mass of bacteria embedded in a mucilaginous matrix, frequently forming an iridescent film; zooglea.

zoogonidium (zō'ōgōnidān'jūm) *n.* [Gk. *zoon*, animal; *gonos*, offspring; *idion*, *dim.*; *angeion*, vessel.] A cell which produces zoospores or zoogonidia, in algae.

zoogonidium (zō'ōgōnid'ium) *n.* [Gk. *zoon*, animal; *gonos*, offspring; *idion*, *dim.*] One of motile spores formed in gonidium of algae.

zoogonous (zōōg'ōnūs) *a.* [Gk. *zoon*, animal; *gonos*, offspring.] Viviparous.

zooid (zō'oid) *n.* [Gk. *zoon*, animal; *eidōs*, like.] A member of a compound animal organism; an individual or person in a coelenterate or polyzoan colony; posterior genital and non-sexual region formed in many polychaetes.

zoolith (zō'ōlith) *n.* [Gk. *zoon*, animal; *lithos*, stone.] A fossil animal.

zoology (zōōl'ōji) *n.* [Gk. *zoon*, animal; *logos*, discourse.] The science dealing with structure, functions, behaviour, history, classification, and distribution of animals.

zoōme (zō'ōm) *n.* [Gk. *zoon*, animal.] Animals considered as an ecological unit.

zoomorphosis (zō'ōmōr'fōsis) *n.* [Gk. *zoon*, animal; *morphosis*, a forming.] Formation of structures in plants owing to animal agents, as production of galls.

zoon (zō'ōn) *n.* [Gk. *zoon*, animal.] An individual developed from an egg.

zoonerythrin (zō'ōnērith'rīn) *n.* [Gk. *zoon*, animal; *erythros*, red.] Red lipochrome pigment found in various animals; *zooerythrin*, *q.v.*

zoonite (zō'ōnīt) *n.* [Gk. *zoon*, animal.] A body segment of an articulated animal.

zoonomy (zōōn'ōmī) *n.* [Gk. *zoon*, animal; *nomos*, law.] The laws dealing with animal life.

zoonosis (zōōn'ōsis) *n.* [Gk. *zoon*, animal; *nosos*, disease.] Disease of animals; animal disease transmitted to man. *Cf.* *zoonosis*.

zooparasite (zō'ōpār'āsīt) *n.* [Gk. *zoon*, animal; *parasitos*, parasite.] Any parasitic animal.

zoopherin,—nutritional factor X, related to erythrotin or vitamin B₁₂.

zoophilous (zōōf'īlus) *a.* [Gk. *zoon*, animal; *philein*, to love.] *Appl.* plants adapted for pollination by animals other than insects.

zooaphobic (zōōfōb'īk) *a.* [Gk. *zoon*, animal; *phobos*, fear.] Shunning, or shunned by, animals; *appl.* plants protected by spines, hairs, secretions, etc.

zoophyte (zō'ōfīt) *n.* [Gk. *zoon*, animal; *phyton*, plant.] An animal resembling a plant in appearance or growth.

zooplankton (zō'ōplāng'ktōn) *n.* [Gk. *zoon*, animal; *planktos*, wandering.] Animal plankton.

zooplasm (zō'ōplāzm) *n.* [Gk. *zoon*, animal; *plasma*, mould.] Living substance which depends on the products of other living organisms for nutritive material.

zoonosis (zō'ōsis) *n.* [Gk. *zoon*, animal.] Any disease produced by animals; *cf.* *zoonosis*.

zoosperm (zō'ōspērm) *n.* [Gk. *zoon*, animal; *sperma*, seed.] A spermatozoid; a zoospore.

zoosphere (zō'ōsfēr) *n.* [Gk. *zoon*, animal; *sphaira*, globe.] Biciliate zoospore of algae.

zoosporangiophore (zō'ōspōrān'jōfōr) *n.* [Gk. *zoon*, animal; *sporos*, seed; *angeion*, vessel; *phoros*, bearing.] Structure bearing zoosporangia, as in mildew fungi.

zoosporangium (zō'ōspōrān'jūm) *n.* [Gk. *zoon*, animal; *sporos*, seed; *angeion*, vessel.] A sporangium in which zoospores develop.

zoospore (zō'ōspōr) *n.* [Gk. *zoon*, animal; *sporos*, seed.] A swarm-cell, flagellate or amoeboid, in many protozoa; a motile protoplast in certain algae; swarm-spore of certain fungi.

zoosporocyst (zō'ōspōr'ōsist) *n.* [Gk. *zoon*, animal; *sporos*, seed; *kystis*, bladder.] Zoosporangium of certain saprophytic Phycomycetes.

zoosterols (zōōstēr'ōlz) *n. plu.* [Gk. *zoon*, animal; *stereos*, solid; *I. oleum*, oil.] Animal sterols, as cholesterol, coprosterol, etc.

zootaxy (zō'ōtākxi) *n.* [Gk. *zoon*, animal; *taxis*, arrangement.] The classification of animals.

zootechnics (zō'ōtēk'nīks) *n.* [Gk. *zoon*, animal; *techne*, craft.] Science applied to the art of breeding, rearing, and utilising animals; *zootechny*.

zoothecium,—zoocytiūm, *q.v.*

zoothome (zō'ōthōm) *n.* [Gk. *zoon*, animal; *thomos*, heap.] Any group of individuals in a living coral.

zootomy (zōōt'ōmī) *n.* [Gk. *zoon*, animal; *temnein*, to cut.] Dissection or anatomy of animals other than man.

zootoxin (zō'ōtōk'sīn) *n.* [Gk. *zoon*, animal; *toxikon*, poison.] Any toxin or poison produced by animals.

zootrophic (zō'ōtrōf'īk) *a.* [Gk. *zoon*, animal; *trephein*, to nourish.] Heterotrophic; *holozoic*, *q.v.*

zootype (zō'ōtīp) *n.* [Gk. *zoon*, animal; *typos*, pattern.] Representative type of animal.

zooxanthellae (zō'ōzānthēl'ē) *n. plu.* [Gk. *zoon*, animal; *xanthos*, yellow.] Yellow or brown cells or symbiotic unicellular algae living in various animals.

zooxanthin (zō'ōzānthīn) *n.* [Gk. *zoon*, animal; *xanthos*, yellow.] Yellow pigment found in plumage of certain birds.

zoozygosphere,—planogamete, *q.v.*

zoozygospore (zōōzī'gōspōr) *n.* [Gk. *zoon*, animal; *zygon*, yoke; *sporos*, seed.] A motile zygosporangium.

Zuckermandl's bodies [*E. Zuckermandl*, Austrian anatomist]. Chromaffin tissue or paraganglia lying on each side of foetal abdominal aorta; aortic bodies.

zygantrum (zīgān'trūm) *n.* [Gk. *zygon*, yoke; *antron*, cave.] A fossa on posterior surface of neural arch of vertebrae of snakes and certain lizards; *cf.* zygosphenes.

zygapophysis (zī'gāpōf'isis) *n.* [Gk. *zygon*, yoke; *apophysis*, process of a bone.] One of processes of a vertebra by which it articulates with adjacent vertebrae.

zygobranchiate (zī'gōbrāng'kiāt) *a.* [Gk. *zygon*, yoke; *branchia*, gills.] Having gills symmetrically placed and renal organs paired; *appl.* an order of Gastropoda.

zygocardiac ossicles,—paired lateral ossicles in gastric mill of Crustacea.

zygodactyl (zī'gōdāk'til) *a.* [Gk. *zygon*, yoke; *daktylos*, digit.] Having two toes pointing forward, two backward, as in parrots.

zygodont (zī'gōdōnt) *a.* [Gk. *zygon*, yoke; *odontos*, tooth.] Having molar teeth in which the four tubercles are united in pairs.

zygogamy (zīgōg'āmi) *n.* [Gk. *zygon*, yoke; *gamos*, marriage.] The union of similar cells, as of unicellular organisms or of isogametes; isogamy.

zygotenic (zīg'ōjēnēt'ik) *a.* [Gk. *zygon*, yoke; *genesis*, origin.] Produced by fertilisation, *opp.* parthenogenic; zygotenic.

zygoid (zī'goid) *a.* [Gk. *zygon*, yoke; *eidos*, form.] Diploid; *appl.* parthenogenesis.

zygolysis (zīgōl'isis) *n.* [Gk. *zygon*, yoke; *lysis*, loosening.] Separation of a pair, as of allelomorphs.

zygoma (zīgō'mā) *n.* [Gk. *zygoma*, yoke.] The bony arch of the cheek; arcus zygomatikus.

zygomatic (zīg'ōmāt'ik) *a.* [Gk.

zygoma, yoke.] Malar; *pert.* zygomatikus; *appl.* arch, bone, fossa, processes, muscle, nerve.

zygomatocofacial (zīg'ōmāt'ikōfā'siāl) *a.* [Gk. *zygoma*, yoke; *L. facies*, face.] *Appl.* foramen on malar surface of zygomatocofacial for passage of nerve and vessels; *appl.* branch of zygomatocofacial or temporo-malar nerve.

zygomatocotemporal (zīg'ōmāt'ikōtēm'pōrāl) *a.* [Gk. *zygoma*, yoke; *L. tempora*, temples.] *Appl.* suture, foramen, nerve, etc., at temporal surface of zygomatocofacial bone.

zygomatikus,—muscle from zygomatocofacial bone to angle of mouth.

zygomelous (zīgōm'elūs) *a.* [Gk. *zygon*, yoke; *melos*, limb.] Having paired appendages; *appl.* fins; *opp.* azygomelous.

zygomite (zī'gōmit) *n.* [Gk. *zygon*, yoke; *mitos*, thread.] One of a pair of conjugated filaments.

zygomorphic (zīg'ōmōr'fik) *a.* [Gk. *zygon*, yoke; *morphe*, shape.] Bilaterally symmetrical, with only one plane of symmetry; zygomorphous, monosymmetrical.

zygonema (zīg'ōnē'mā) *n.* [Gk. *zygon*, yoke; *nema*, thread.] Chromosome thread during amphitene or zygote.

zygoneury (zīg'ōnū'ri) *n.* [Gk. *zygon*, yoke; *neuron*, nerve.] In certain Gastropoda, having a connective between pleural ganglion and ganglion on visceral branch of opposite side.

zygophase (zīg'ōfāz) *n.* [Gk. *zygon*, yoke; *phasis*, aspect.] The diploid phase of a life-cycle; diplophase; *cf.* gamophase.

zygophore (zīg'ōfōr) *n.* [Gk. *zygon*, yoke; *pherein*, to bear.] A conjugating hypha in certain fungi.

zygophyte (zīg'ōfīt) *n.* [Gk. *zygon*, yoke; *phyton*, plant.] A plant with two similar reproductive cells which unite in fertilisation.

zygopleural (zīg'ōploor'āl) *a.* [Gk. *zygon*, yoke; *pleuron*, side.] Bilaterally symmetrical.

zygopodium (zī'gōpō'dfūm) *n.* [Gk. *zygon*, yoke ; *pous*, foot.] Forearm ; shank.

zygosis (zīgō'sis) *n.* [Gk. *zygosis*, a joining.] Conjugation ; union of gametes.

zygosome,—mixochromosome, *q.v.*

zygosperm (zī'gōspērm) *n.* [Gk. *zygon*, yoke ; *sperma*, seed.] Zygospore.

zygosphen (zī'gōsfēn) *n.* [Gk. *zygon*, yoke ; *sphen*, wedge.] An articular process on anterior surface of neural arch of vertebrae of snakes and certain lizards, which fits into zyganktrum.

zygosphere (zī'gōsfēr) *n.* [Gk. *zygon*, yoke ; *sphaira*, globe.] A gamete which conjugates with a similar one to form a zygospore.

zygosporangium (zī'gōspōrānjūm) *n.* [Gk. *zygon*, yoke ; *sporos*, seed ; *anggeion*, vessel.] A sporangium in which zygosporoes are formed.

zygospore (zī'gōspōr) *n.* [Gk. *zygon*, yoke ; *sporos*, seed.] A zygote ; a cell, or resting spore, formed by conjugation of similar reproductive cells.

zygosporocarp (zī'gōspōr'ōkârp) *n.* [Gk. *zygon*, yoke ; *sporos*, seed ; *karpos*, fruit.] A fruit-body in which zygosporoes are produced.

zygosporophore (zī'gōspōr'ōfōr) *n.* [Gk. *zygon*, yoke ; *sporos*, seed ; *pherein*, to bear.] Zygophore, *q.v.* ; suspensor in Mucorineae.

zygotaxis (zīg'ōtāk'sis) *n.* [Gk. *zygon*, yoke ; *taxis*, arrangement.] Tendency towards conjugation between two specialised hyphae in certain fungi ; zygotactism ; mutual attraction between gametes of the opposite sex.

zygote (zī'gōt) *n.* [Gk. *zygotos*, yoked.] Cell formed by union of two gametes or reproductive cells ; fertilised ovum.

zygotene (zī'gōtēn) *n.* [Gk. *zygon*, yoke ; *tainia*, band.] Prophase stage of meiosis where spireme threads are uniting in pairs ; pairing threads.

zygotic (zīgōt'ik) *a.* [Gk. *zygotos*,

yoked.] *Pert.* a zygote ; *appl.* mutation occurring immediately after fertilisation ; *appl.* number, somatic, *opp.* gametic, number, of chromosomes, *2n*.

zygotoblast (zīgō'tōblāst') *n.* [Gk. *zygotos*, yoked ; *blastos*, bud.] A sporozoite produced by segmentation of zygotomere in Haemamoebae.

zygotoid (zīgō'toid) *n.* [Gk. *zygotos*, yoked ; *eidos*, form.] Product of union of two gametoids, as in mucorine fungi.

zygotomere (zīgō'tōmēr) *n.* [Gk. *zygotos*, yoked ; *meros*, part.] A cell formed by segmentation of zygote in Haemamoebae.

zygotonucleus (zīgō'tōnū'klēūs) *n.* [Gk. *zygotos*, yoked ; *L. nucleus*, kernel.] A nucleus formed by fusion of two gametonuclei.

zygotropism (zīgōt'rōpizm) *n.* [Gk. *zygon*, yoke ; *trope*, turn.] The growth of zygomorphs towards each other ; *cf.* zygotaxis.

zygozoospore (zī'gōzō'ōspōr) *n.* [Gk. *zygon*, yoke ; *zoön*, animal ; *sporos*, seed.] A motile cell formed by union of two similar cells.

zymase (zī'mās) *n.* [Gk. *zyme*, leaven.] A complex of enzymes occurring in plants and acting on sugars, with production of carbon dioxide and alcohol.

zymin (zī'min) *n.* [Gk. *zyme*, leaven.] An enzyme or ferment.

zymocont (zī'mōkōnt) *n.* [Gk. *zyme*, leaven ; *kontos*, pole.] Rod-shaped chondriosome of a pancreatic cell.

zymo-excitor,—a substance activating a zymogen, *e.g.* hydrochloric acid, which activates pepsin

zymogen (zī'mōjēn) *n.* [Gk. *zyme*, leaven ; *-genes*, producing.] A substance capable of being transformed into a ferment, *i.e.* precursor of an enzyme ; proenzyme ; proferment ; a zymogenic organism.

zymogenesis (zī'mōjēn'ēsīs) *n.* [Gk. *zyme*, leaven ; *genesis*, origin.] The production of an enzyme by a zymogen activated by a kinase.

zymogenic (zī'mōjēn'ik) *a.* [Gk. *zyme*, leaven; *-genes*, producing.]

Enzyme-producing; *appl.* certain cells of gastric gland tubule; *appl.*

• micro-organisms, as bacteria.

zymohydrolysis (zī'mōhidrōl'isis) *n.*

[Gk. *zyme*, leaven; *hydor*, water;

• *lysis*, breaking down.] Hydrolysis due to the action of an enzyme; enzymatic hydrolysis.

zymolysis (zīmōl'isis) *n.* [Gk. *zyme*, leaven; *lysis*, loosing.] Decomposition by the action of enzymes.

zymophore (zī'mōfōr) *n.* [Gk. *zyme*, leaven; *phoros*, bearing.] The active portion of an enzyme, bearing the ferment.

zymoprotein (zī'mōprōtēin) *n.* [Gk. *zyme*, leaven; *proteion*, first.] Any of the proteins having catalytic capacity.

zymosis (zīmō'sis) *n.* [Gk. *zymosis*, fermentation.] Fermentation; reactions induced by an enzyme or enzymes.

zymosthenic (zī'mōsthēn'ik) *a.* [Gk. *zyme*, leaven; *sthenein*, to be strong.] Enhancing the activity of an enzyme.

zymotic (zīmōt'ik) *a.* [Gk. *zymotikos*, causing fermentation.] *Pert.* or caused by fermentation; *appl.* diseases induced by infection.

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